DOCUMENT RESUME

ED 303 220 JC 890 077

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TITLE Howard Community College Enrollment Projections: Fiscal Year 1989 and Fiscal Years 1990 through 1994. Research Report Number 55.
INSTITUTION Howard Community Coll., Columbia, MD. Office of Research and Planning.
PUB DATE Dec 88
NOTE 57p.
PUB TYPE Reports - Research/Technical (143) -- Statistical Data (110)

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS Age Groups; *Cohort Analysis; Community Colleges; *Enrollment Projections; Models; *Population Trends; Two Year Colleges; *Two Year College Students

ABSTRACT

Enrollment projections for Howard Community College (HCC) are made using an age cohort model that assumes that HCC will continue to enroll the same proportion of students in each age group as are represented in the current student population. Projections are made by calculating the ratio of HCC students in each age group to the number of county residents in the same age groups. These ratios are applied to population projections provided by the Maryland State Planning Center in order to derive enrollment projections. Projections for fiscal year (FY) 1989 fall enrollments using this model came within 3.76% of actual enrollments. There are three major sources of potential errors and/or differences with this model: (1) possible errors in the state planning projections; (2) fall 1988, a year with a high participation rate, is used as the model year; and (3) the model does not consider the effect of tuition increases, if any, or other economic factors. Other factors that may affect enrollments are population growth, unemployment rates, and trends in the numbers of Howard County high school graduates. To account for a variety of unexpected factors, as well as the error margin inherent in any model, moderate projections are bracketed with low projections, which use fall 1987 as the model year for credit enrollment, and high projections, which attempt to include changes in courses and programs designed specifically to increase enrollment. The bulk of the report consists of charts and tables showing past enrollments and projections through 1994. (AJL)

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HOWARD COMMUNITY COLLEGE

ENROLLMENT PROJECTIONS: FISCAL YEAR 1989 AND FISCAL YEARS 1990 THROUGH 1994

RESEARCH REPORT NUMBER 55

DECEMBER 1988

Office of Research and Personnel

Howard Community College

Columbia, Maryland

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HOWARD COMMUNITY COLLEGE ENROLLMENT PROJECTIONS

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HOWARD COMMUNITY COLLEGE
OFFICE OF RESEARCH AND PERSONNEL

Research Report Number 55

TITLE: Enrollment Projections: Fiscal Year 1989 and Fiscal Years 1990 to 1994

AUTHORS: Virginia E. Novak, Research Analyst and
Susan K. Radcliffe, Executive Director of Research and Personnel

PART I. ENROLLMENT PROJECTIONS - INTRODUCTION

A. Purposes of Enrollment Projections

Enrollment projections are a planning tool used by colleges and universities in order to plan for the coming academic years and also the budget planning process. Our projections are also intended for this purpose.

B. Brief Description of Model and Method Used

The model used here to project **credit** enrollment is the same model used for the Fiscal Year 1989 enrollment projections, with some modifications and enhancements. It is an age cohort model. That is, projections are made by using the **ratio** of each Howard Community College student age cohort (0 to 15; 15 to 19; etc.) to the total Howard County population in that same age cohort. That ratio is then used to derive enrollment for future years by taking that same proportion and applying it to Maryland State Planning Center projections for Howard County population.

In other words, this model is based on the assumption that you can expect **approximately** the same **proportions** of full-time equivalent HCC credit students from each age group which you observed in the model year.

C. Strengths and Limitations of Enrollment Projections and Comparisons of FY89 Projections With Actual Enrollments

Enrollment projections are always educated guesses. They cannot be guaranteed. However, by using a carefully planned model, a more sophisticated guess which is more likely to reflect reality can be provided. These projections do not take into account the effect of tuition increases, if any, or other economic factors. Appendix A shows the relationship of our tuition rates to other area colleges.

The moderate projections for FY88 full-year FTE **credit** enrollment, done in December 1987, came within .34% of the actual FY88 enrollment. In other words, our fall-to-fiscal year multiplier for credit FTE enrollment has been fairly stable over the years and accurate. Projections for FY89 fall (which is Fall 1988), credit FTE enrollment were within 3.76% of the actual FTE enrollment for Fall 1988 (FY89); we were 3.76% low. This is reasonably close.

The 3.76% difference between our projections and the actual Fall 1988 enrollment can be accounted for in three ways. First, these projections assume the accuracy of the State Planning Data projections; the accuracy of these projections will not be tested until the 1990 Census results are published. Second, there is always a margin of error with any projection, or any other statistical procedure. Third, there are always factors which are not included in the model. For example, we did not have any way to include the impact of the changes in admissions requirements at Maryland public four-year colleges and universities. If we could determine how much of our enrollment increase was due to the changes in the four-year schools, we would have a better evaluation of our projection model. In other words, if the four-year colleges had **not** changed their admissions standards, our projections might have been right on target. We also do not know what effect, if any, tuition increases, registration dates and other similar factors may have had.

Our **credit-free** projections for Fall 1988 were 5.25% lower than actual enrollments. This is more difficult to explain; however, the model has been modified slightly in order to attempt to project more accurately.

PART II - MODELS AND METHODOLOGIES CONSIDERED

A. Linear Regression

A modified linear regression model was used as the central part of the Howard Community College projection model until December 1987. This model is a statistical tool that uses past trends in enrollment to predict future enrollment. For past trends, actual enrollment from Fiscal Year 1977 through Fiscal Year 1988 would be the basis on which predictions were made.

The linear regression model is limited to the past. That is, whatever trends were operating in the past years (the independent variables), will show up in the projections. If trends have changed, or are changing, the model is less effective. For example, we know that the rate of Howard County population growth is changing. The linear regression model cannot take these future changes in rates into account. (On the other hand, if future growth rates were expected to be very similar to past rates, the model would be effective.) The same limitation applies to recent high school graduate population changes.

Modifications Added to Model: Because linear regression did not account for every factor we wished to include in our projection model, modifications were added to the HCC model in order to tailor projections more appropriately to this community. However, the number of changes and modifications that were required began to have the effect of weakening the model.

B. Multiple Regression

Another model considered was the multiple regression model. This approach is able to include the influence of a number of different factors on enrollment. However, the factors which are most important to HCC's enrollment (Howard County population and the county high school graduating classes) could not be used. This is because these factors are too similar to the dependent variable (HCC enrollment); colinearity then interferes with the results provided by the model.

C. **Credit-Free - Average Increase Over Time**

It is difficult to use a formal projection model for credit-free enrollment. Instead, we used a rather informal method of average increases over the past several years modified by the associate dean of continuing education's projections. Actually, the associate dean's projections were used as the Low Projection for FY89 and FY90. Moderate and high projections were derived by using the **lowest rate of increase** in the past five years. However, for FY89, an average fall-to-year multiplier was used. Low Projections used the associate dean's rate of increase. Both linear and multiple regression were tried for credit-free projections, but did not appear to be promising; they projected unrealistically high enrollments as a result of several dramatic growth spurts in several past years.

This informal method was used only to project **credit-free** enrollment. Unfortunately, it was impossible to separate credit enrollment between the divisions and Continuing Education; credit enrollment is combined.

It should be noted that these projections for Continuing Education credit-free enrollment are not intended to be related in any way to internal accountability.

PART III - OTHER FACTORS

A. **Howard County Population Growth as a Factor in Enrollment**

Howard County population is growing, and we would anticipate that this growth would be reflected in Howard Community College's enrollment. Chart 4-A shows the county population growth over the past few years and also the projections for growth for the next few years. These projections were done by the Maryland Department of State Planning and by Howard County Department of Planning and Zoning.

Because the county population growth is not uniform among the age cohorts, the model does **not** project continued uniform enrollment growth for the college.

B. **Unemployment Rates**

Some national enrollment data have seemed to suggest a direct relationship between unemployment rates and college and community college enrollment. Several years ago, our data also seemed to show this same direct relationship between Howard County unemployment rates and HCC enrollment. However, this does not seem to be an important factor in Howard County at this time. This fall, Howard County's unemployment rate of 2.7% (last year it was 2.3%) continues to be very, very low - one of the lowest in the state. Yet our enrollment this fall continued to grow.

C. **Howard County High School Graduates**

Over the next few years, Howard County school population figures, show a flattening and then a declining trend in the number of high school graduates. Future trends in this population group are quite different from past trends. Chart 5-A shows the population of Howard County high school graduates for the past few years, and the population of graduates expected through 1995. The accompanying line graph (Chart 5-B) has been intentionally shortened to highlight dramatically the ups and downs in population for illustration.

It is interesting to note that there was a dip in the graduating class in June 1987 while HCC enrollment rose the following fall (Fall 1987). Howard Community College's coordinator of admissions has suggested that a number of county high school students attend HCC for the first time one or more semesters after the September following their graduation. In other words, there may be a delayed effect of the county graduating seniors on HCC's enrollment.

For the **Fall 1988** enrollment increase, however, the relationship is what would be expected. There was an increase in the size of the June 1988 Howard County high school graduating classes; **more important is the increase in the age cohort represented by the graduating class.** A similar increase was reflected in our Fall 1988 enrollment. Although the increase does **not actually reflect specific Howard County high school graduates who enrolled at HCC in Fall 1988,** it does reflect the general trend of increases in that age cohort. This is the kind of increase predicted by our age cohort model; it takes into account the change in size of the high school age cohort.

In June 1989, however, this increase begins to flatten out; thereafter, a decline is observed for the next several years. Chart 5-A shows these changes. The next increase in the size of Howard County high school graduating classes is not expected until June 1995.

PART IV AGE COHORT MODEL FOR MODERATE ENROLLMENT PROJECTIONS

The age cohort model provides a systematic enrollment projection model based on an age cohort analysis of Howard Community College enrollments. This model projects what enrollments would be if economic and community conditions were relatively stable, and if we continued to enroll the **same proportions** of students in each age cohort. The model is based on Howard County population growth derived from Maryland Department of State Planning projections. The results are projections of Howard Community College full-time equivalent (FTE) credit enrollment for Fall 1989 through Fall 1993. Fiscal Year 1989 FTE credit enrollment is projected using a set of fall-to-year multipliers.

This age cohort model is created by deriving a ratio representing the proportion of HCC students to the county population in each age group for a model year. The number of Fall 1988 (base year for moderate projections) FTE students in each age group was divided by the Howard County total population (MD State Planning Department and Howard County Department of Planning and Zoning) in each age group for that year (1988). This yields the ratio of participation for each age cohort. Chart 6 shows these ratios for each age cohort.

The participation rates were then used to project Howard Community College credit FTE enrollment by taking the same ratio, or participation rate, of Howard County age cohorts each projected year from Fall 1989 (FY90) through Fall 1993 (FY94). The model assumes that the **proportion** of Howard County residents enrolled in HCC credit classes will remain relatively stable. Fiscal Year credit FTE projections are then derived by correcting for employees and out-of-state students (Chart 8-A) and then by applying a fall-to-year multiplier (Chart 9-A). A fall-to-year multiplier of 2.166 was used to project the total credit FTE for each fiscal year, using Fall 1989 credit FTE projections to calculate FY90 total credit FTE, and so on.

As Chart 1-A and Chart 1-B show, this model projects a gradual flattening of growth over the next five years as a direct reflection of the county age cohorts.

Credit-free FTE projections were based on an informal average increase method, since the age cohort analysis model is not appropriate for credit-free projections. The moderate and high projections for credit-free enrollment are derived from the research office; the low projections are from the associate dean of continuing education. The credit FTE and the credit-free FTE were then totalled to yield the yearly FTE enrollment.

PART V ERROR MARGINS - HIGH AND LOW PROJECTIONS

A. INTRODUCTION

There are three major sources of potential errors and/or differences with this model. First, there could be errors in the State Planning projections. Second, Fall 1988 is used as the model year; the participation rate for this year was quite high. Therefore, there is some risk in assuming that this participation rate will continue. Third, as mentioned above, this model does **not** take into account important environmental influences and changes such as tuition rate increases, registration dates, economic factors, administrative changes in Maryland four-year public colleges, internal changes in courses and programs which would influence the proportions of Howard County residents who would register, and marketing strategies.

On the one hand, one would **not** expect **continued increases** in enrollment due to changes in the four-year schools. If the current practices continue, the moderate projections in Chart 1-A and Chart 1-B should predict our enrollment growth reasonably accurately without any additional adjustments. **Other changes**, however, such as efforts to **increase** freshman enrollment at four-year schools, could affect our enrollment in a negative direction.

To account for a variety of unexpected factors, as well as the error margin inherent in any model, we have bracketed our moderate projections with **low projections** (Charts 2-A and 2-B) and **high projections** (Charts 3-A and 3-B).

B. LOW PROJECTIONS

The low projections use Fall 1987 as the model year for credit enrollment. The participation rates in Fall 1987 were **lower** than in Fall 1988, due in part to the higher freshman enrollment in four-year colleges, and in part to other factors of which we may not be aware. These projections were corrected for employees and out-of-state enrollments, and were converted to fiscal year projections just as the moderate projections were. Low credit-free projections were then added for total fiscal year **low projections** (Charts 2-A and 2-B).

C. HIGH PROJECTIONS

The high projections on Charts 3-A and 3-B represent a major revision in traditional projection models. In cooperation with the instructional area, in particular the two associate deans of the divisions, a new model for credit enrollment is provided in Charts 3-A and 3-B. This model attempts to **include** the kinds of factors that cannot generally be included in standard projection models and are **not** included in our moderate projections (Chart 1-A and 1-B). These are the changes in courses and

programs which are designed specifically to increase enrollment. This model, the high projections, is our first attempt to take some of these factors into account. It is very difficult to predict how well the College can project the effects of these changes on enrollment; this is the reason why these are built into the **high projection** model rather than the moderate.

The associate deans of the divisions and the vice-president and dean of instruction have suggested that several environmental changes would be important influences on enrollment. For example, the new building would be expected to attract new students to HCC who might not have otherwise attended. In addition, the academic divisions have made significant progress in course development and modification in cooperation with community groups such as the Columbia Association. Furthermore, the new General Education requirements are expected to result in increased enrollment in math, communication courses, fine arts areas, and speech. Students who would not have otherwise taken these courses now will be required to do so in order to earn a degree. Most of the same requirements are mandated for the four-year institutions, so transfer students would also need the General Education courses. Another factor for higher enrollment is the a number of **new** programs and/or courses which would be expected to attract new students. These include Early Childhood Education, criminal justice (courses only at this stage), and new fine arts courses. These courses and programs are offered in response to needs expressed by members of the community so they are expected to attract additional students.

The high projections for FY90 used the associate deans' projections by discipline, including new courses and programs. These projections are built from the disciplines up to a total, taking into account the factors mentioned above. High projections for FY91 through FY94 are derived in a different way. The <u>percentage increase</u> resulting from the age cohort models was used.

High projections for credit-free enrollment projections were done using an average enrollment increase over the past several years (see Appendix D), in FY89, and the <u>low average increase</u> for subsequent years. Charts 3-A and 3-B show these projections. Appendix F gives the details by discipline.

FINDINGS: Tables showing the enrollment projections follow.

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TABLES AND CHARTS

CHART 1-A
HOWARD COMMUNITY COLLEGE
MODERATE FTE ENROLLMENT PROJECTIONS
FISCAL YEAR 1989 THROUGH FISCAL YEAR 1994

	FISCAL YEAR	CREDIT FTE	CREDIT-FREE FTE	TOTAL FTE	PERCENT CHANGE
ACTUAL	1982	1,639	404	2,043	
---------	1983	1,861	471	2,332	14.1%
	1984	1,756	611	2,368	1.5%
	1985	1,694	647	2,341	-1.1%
	1986	1,640	709	2,349	0.4%
	1987	1,686	750	2,436	3.7%
	1988	1,782	838	2,621	7.6%
PROJECTED	1989	1,907	891	2,798	10.4%
---------	1990	1,951	943	2,894	0.0%
	1991	1,998	998	2,995	3.5%
	1992	1,995	1,056	3,051	1.8%
	1993	1,992	1,117	3,109	1.9%
	1994	1,989	1,182	3,171	2.0%

FTE figures do not include out-of-state students or employees.
Credit FTE includes both Division Credit and Continuing Education Credit.

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CHART 1-B

MODERATE FTE ENROLLMENT PROJECTIONS

FISCAL YEAR 1989 THROUGH FISCAL YEAR 1994

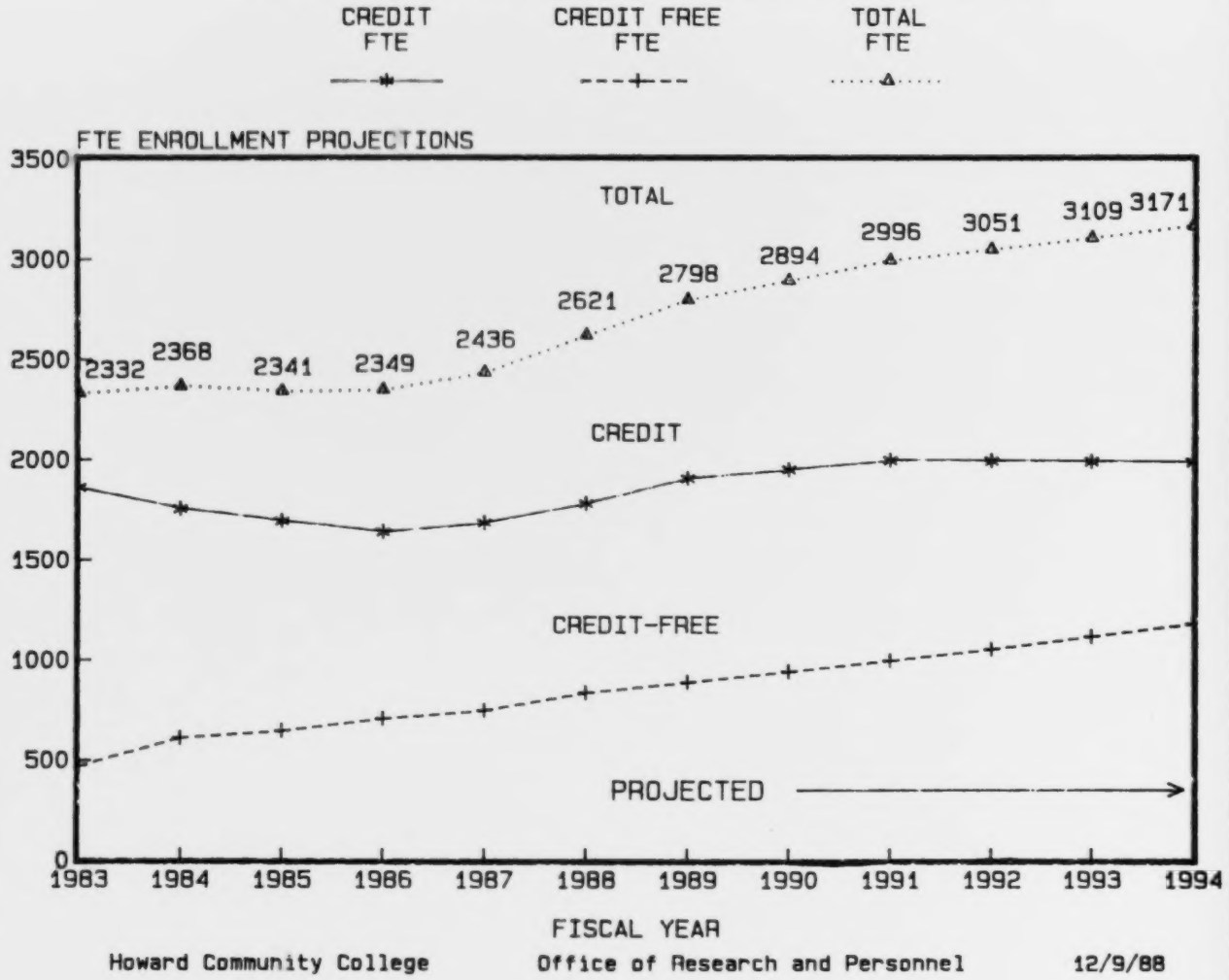

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CHART 2-A
HOWARD COMMUNITY COLLEGE
LOW FTE ENROLLMENT PROJECTIONS
FISCAL YEAR 1989 THROUGH FISCAL YEAR 1994

	FISCAL YEAR	CREDIT FTE	CREDIT-FREE FTE	TOTAL FTE	PERCENT CHANGE
ACTUAL	1982	1,639	404	2,043	
---------	1983	1,861	471	2,332	14.14%
	1984	1,756	611	2,368	1.53%
	1985	1,694	647	2,341	-1.14%
	1986	1,640	709	2,349	0.35%
	1987	1,685	750	2,435	3.69%
	1988	1,782	838	2,621	7.60%
PROJECTED	1989	1,907	891	2,798	6.75%
---------	1990	1,884	914	2,798	0.01%
	1991	1,932	938	2,870	2.58%
	1992	1,931	963	2,894	0.82%
	1993	1,930	988	2,918	0.84%
	1994	1,928	1,014	2,942	0.82%

FTE figures do not include out-of-state students or employees.
Credit FTE includes both Division Credit and Continuing Education Credit.

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CHART 2-B

LOW FTE ENROLLMENT PROJECTIONS

FISCAL YEAR 1989 THROUGH FISCAL YEAR 1994

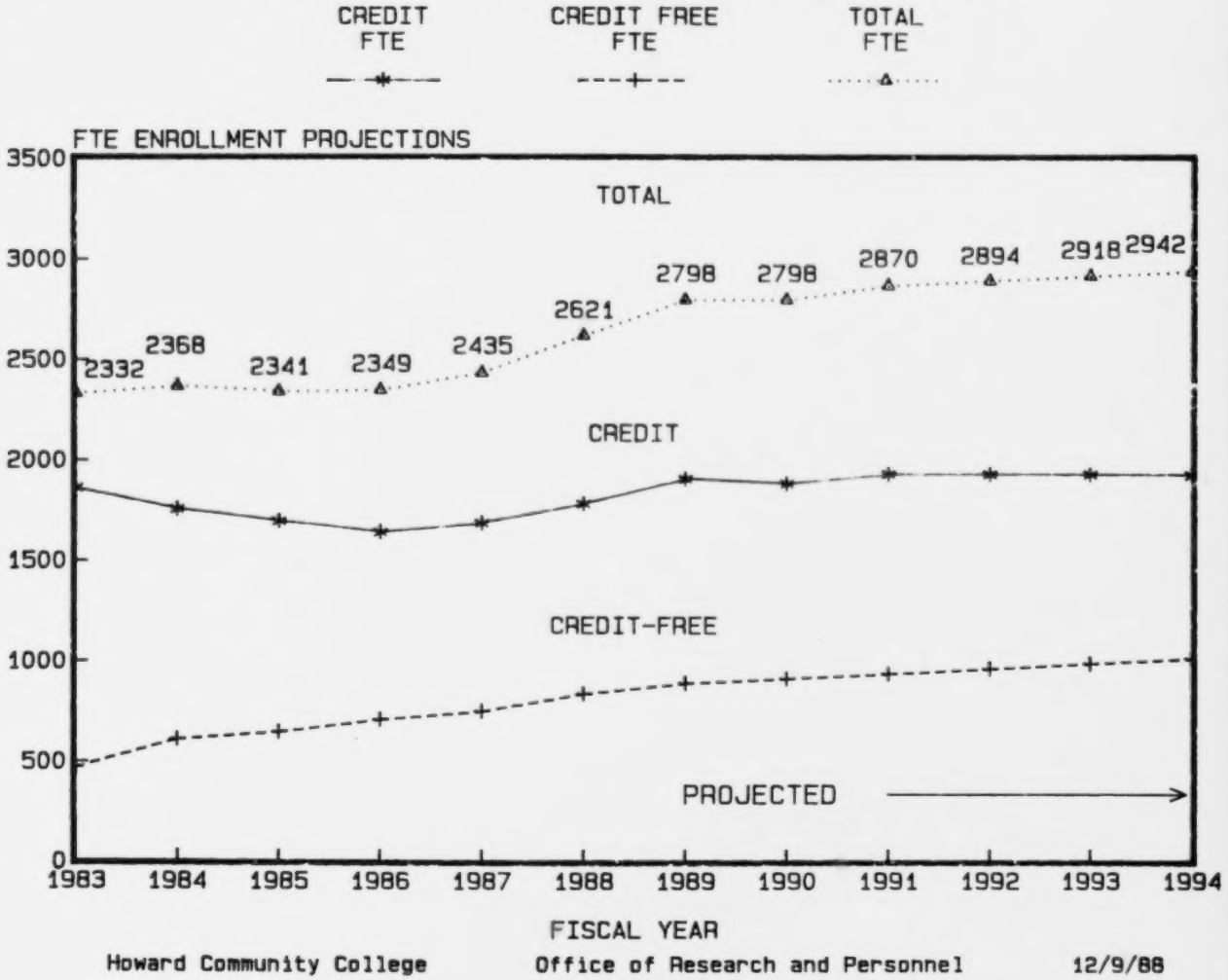

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CHART 3-A
HOWARD COMMUNITY COLLEGE
HIGH FTE ENROLLMENT PROJECTIONS
FISCAL YEAR 1989 THROUGH FISCAL YEAR 1994

	FISCAL YEAR	CREDIT FTE	CREDIT-FREE FTE	TOTAL FTE	PERCENT CHANGE
ACTUAL	1982	1,639	404	2,043	
---------	1983	1,861	471	2,332	14.1%
	1984	1,756	611	2,368	1.5%
	1985	1,694	647	2,341	-1.1%
	1986	1,640	709	2,349	0.4%
	1987	1,686	750	2,436	3.7%
	1988	1,782	838	2,621	7.6%
PROJECTED	1989	1,907	976	2,883	10.0%
---------	1990	2,001	1,033	3,034	5.2%
	1991	2,109	1,093	3,202	3.6%
	1992	2,057	1,157	3,213	2.0%
	1993	2,057	1,224	3,282	2.0%
	1994	2,059	1,295	3,354	2.1%

FTE figures do not include out-of-state students or employees.
Credit FTE includes both Division Credit and Continuing Education Credit.

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CHART 3-B

HIGH FTE ENROLLMENT PROJECTIONS

FISCAL YEAR 1989 THROUGH FISCAL YEAR 1994

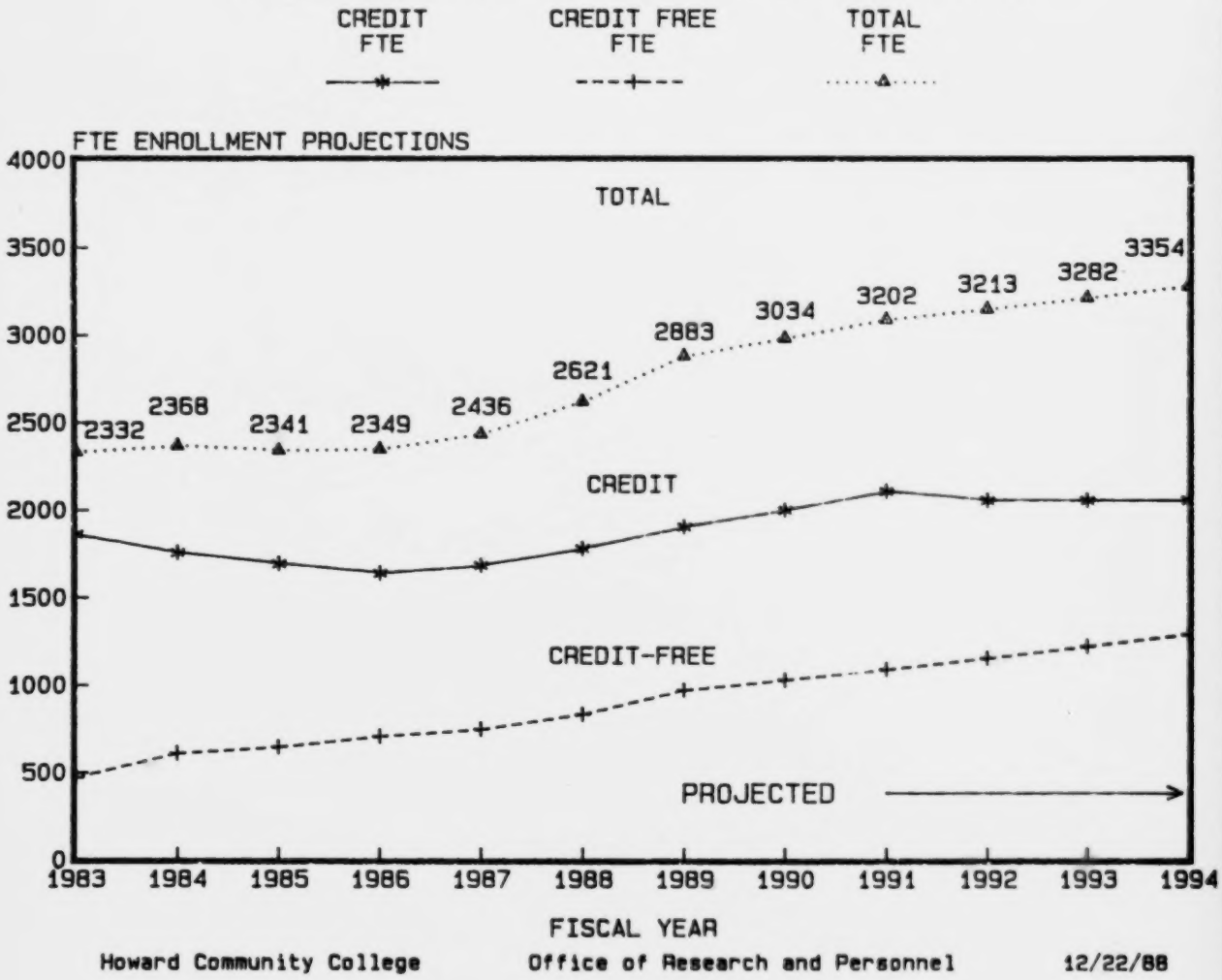

CHART 4-A
HOWARD COUNTY POPULATION GROWTH - 1980 - 1992
Based on
UNITED STATES 1980 CENSUS
and
MARYLAND DEPARTMENT OF STATE PLANNING PROJECTIONS

Year	Male	Female	Total	% Growth
1980	59,244	59,328	118,572	----
1981	61,234	61,246	122,480	3.30%
1982	63,354	63,304	126,658	3.41%
1983	65,610	65,514	131,124	3.53%
1984	68,373	68,500	136,873	4.38%
1985	70,655	70,793	141,448	3.34%
1986	74,079	74,299	148,378	4.90%
1987	77,504	77,805	155,309	4.67%
1988	80,928	81,310	162,238	4.46%
1989	84,353	84,816	169,169	4.27%
1990	87,777	88,322	176,099	4.10%
1991	89,749	90,350	180,099	2.27%
1992	91,722	92,377	184,099	2.22%
1993	93,694	94,405	188,099	2.17%
1994	95,667	96,432	192,099	2.13%

Howard County Population Projections from Maryland Department of State Planning (9/87) and Howard County Office of Planning and Zoning.

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CHART 4-B

HOWARD COUNTY POPULATION AND PROJECTIONS
1983 - 1994

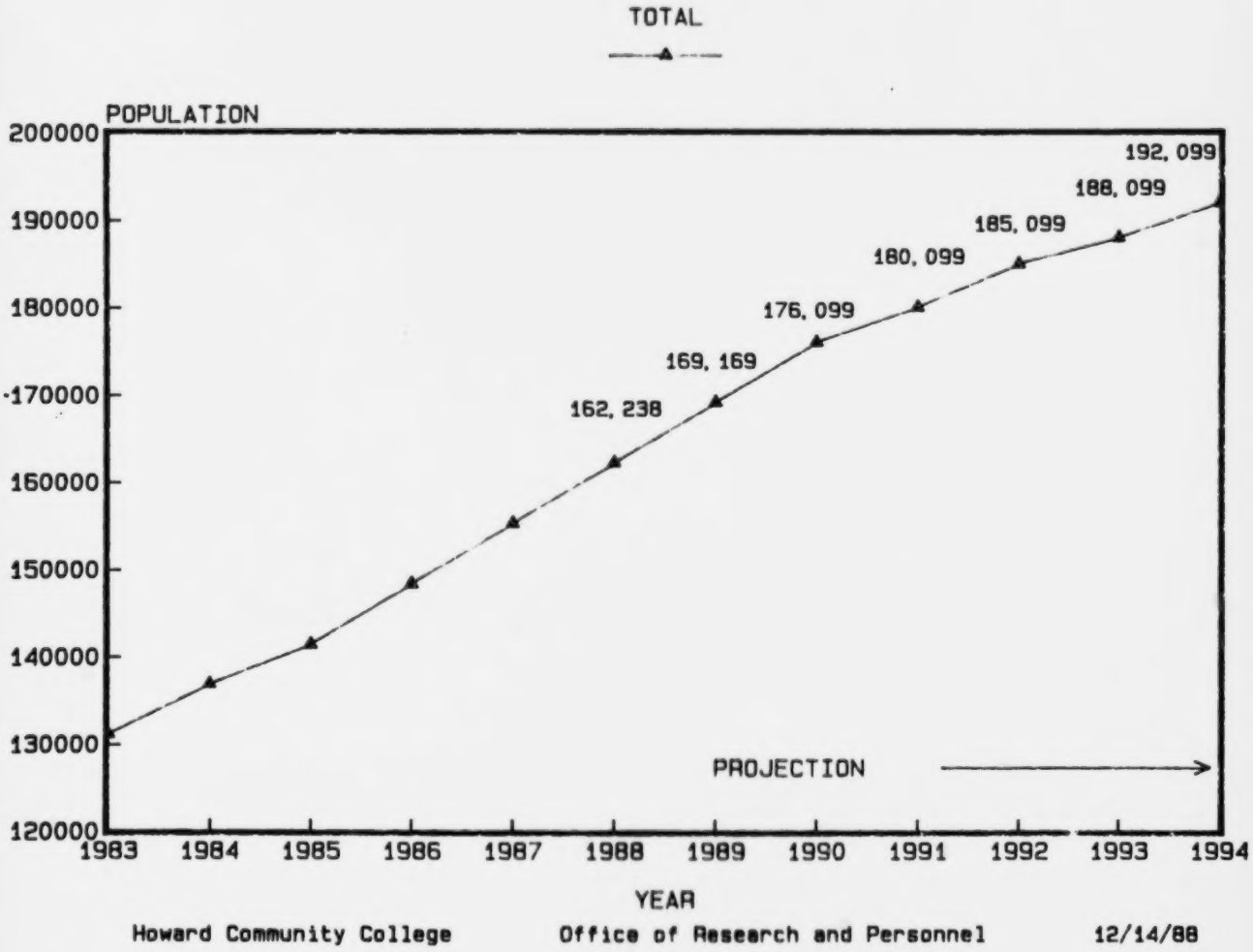

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CHART 5-A

HOWARD COUNTY HIGH SCHOOLS
Graduating Classes

Year	Class	Change	%
1984	1900		
1985	1889	-11	-0.58%
1986	2088	199	10.53%
1987	1976	-112	-5.36%
1988	2136	160	8.10%
1989	2092	-44	-2.06%
1990	2087	-5	-0.24%
1991	1978	-109	-5.22%
1992	1900	-78	-3.94%
1993	1817	-83	-4.37%
1994	1799	-18	-0.99%
1995	1867	68	3.78%
1996	2015	148	7.93%
1997	1970	-45	-2.23%
1998	2066	96	4.87%

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CHART 5-B

HOWARD COUNTY HIGH SCHOOL CLASSES

1984 - 1995

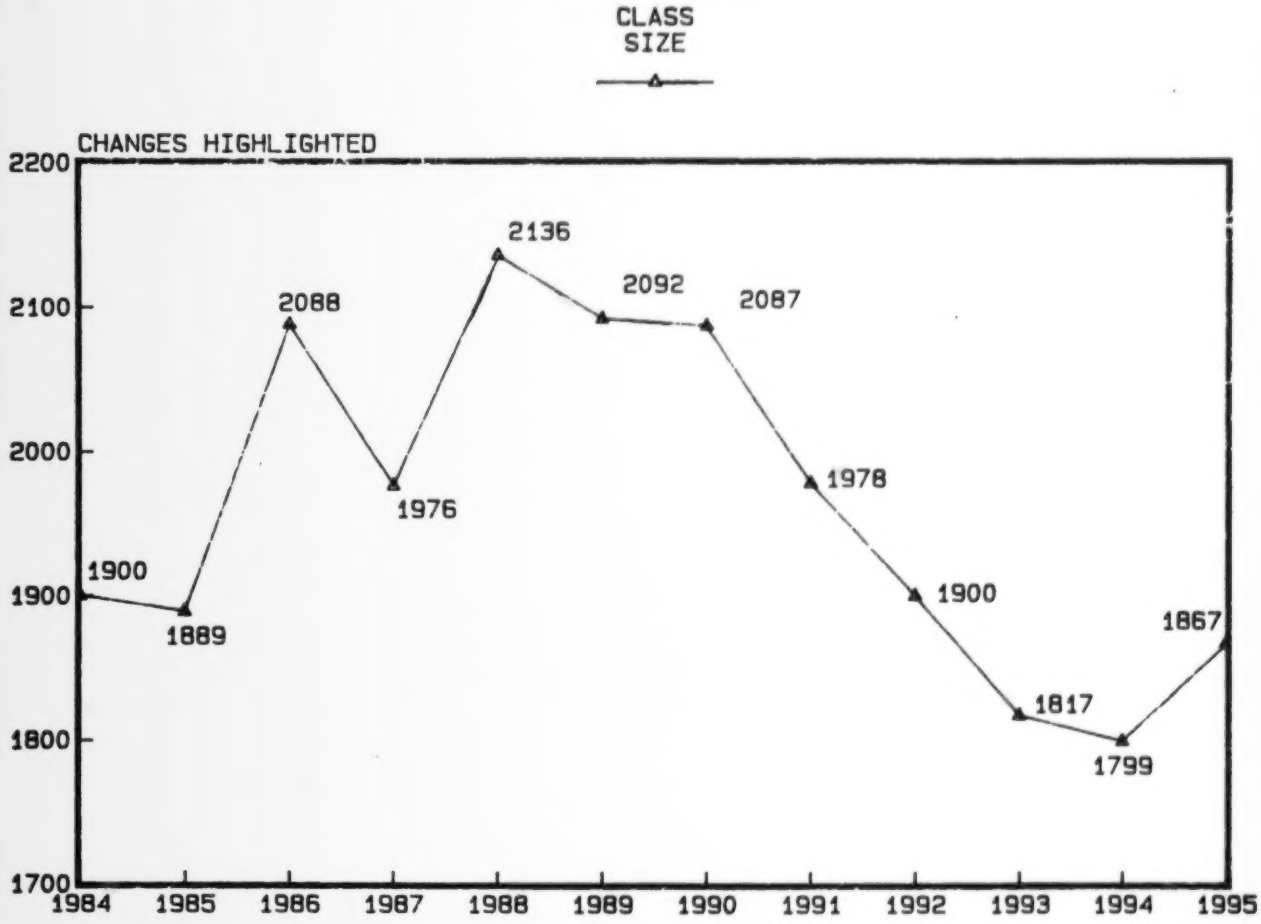

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CHART 6
HOWARD COMMUNITY COLLEGE
AGE COHORT ANALYSIS OF CREDIT ENROLLMENT - MODERATE PROJECTIONS
MODEL YEAR -- FALL 1988

	HCC FTE - FALL 1988			HOWARD COUNTY 1988			PROJECTION RATIOS		
Agegroup	Male	Female	Total	Male	Female	Total	Male	Female	TOTAL
0 - 14	0.00	0.00	0.00	17,392	16,181	33,573	0.000000	0.000000	0.000000
15 - 19	124.30	135.27	259.57	5,632	5,221	10,852	0.022071	0.025910	0.023918
20 - 24	144.10	131.63	275.73	7,249	6,951	14,200	0.019878	0.018938	0.019418
25 - 29	49.80	67.07	116.87	8,228	8,390	16,618	0.006053	0.007993	0.007033
30 - 34	24.03	54.20	78.23	7,752	7,858	15,610	0.003100	0.006897	0.005012
35 - 39	11.33	39.80	51.13	7,980	8,531	16,510	0.001420	0.004666	0.003097
40 - 44	9.50	33.80	43.30	7,340	7,281	14,621	0.001294	0.004642	0.002961
45 - 49	4.33	22.23	26.57	5,478	5,304	10,782	0.000791	0.004192	0.002464
50 - 54	4.53	8.80	13.33	4,249	3,899	8,148	0.001067	0.002257	0.001636
55 - 59	1.17	3.23	4.40	3,229	3,059	6,288	0.000361	0.001057	0.000700
60 +	6.10	8.40	14.50	6,400	8,635	15,035	0.000953	0.000973	0.000964
TOTAL	379.20	504.43	883.63	80,928	81,310	162,239			

Note: Credit enrollment includes both Division Credit and Continuing Education Credit.

Credit enrollment on this chart includes out-of-state students and employees. Chart 8 corrects for their inclusion here.

Howard Community College
Office of Research and Personnel

08-Dec-88
VEN

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CHART 7

HOWARD COMMUNITY COLLEGE

AGE COHORT ANALYSIS OF CREDIT ENROLLMENT
MODERATE PROJECTIONS OF FALL CREDIT FTE ENROLLMENT *

FALL 1988 (MODEL YEAR) - FALL 1994

FTE CREDIT ENROLLMENT AND PROJECTIONS

	Male	Female	Total	% Change
Actual				
FALL 82			826.567	
FALL 83			835.033	1.02%
FALL 84			788.700	-5.55%
FALL 85			766.000	-2.88%
FALL 86			774.567	1.12%
FALL 87	344.133	485.033	829.167	7.05%
FALL 88	379.200	504.433	883.633	6.57%
Projected				
FALL 89	387.14	518.25	905.38	2.46%
FALL 90	395.07	532.06	927.13	2.40%
FALL 91	392.58	533.18	925.76	-0.15%
FALL 92	390.08	534.30	924.38	-0.15%
FALL 93	387.59	535.41	923.00	-0.15%

* Credit FTE enrollment includes both Division Credit and Continuing Education Credit.

Credit enrollment on this chart includes out-of-state students and employees. Chart 8 corrects for their inclusion here.

Howard Community College
Office of Research and Personnel

08-Dec-88
SKR

CHART 8-A

HOWARD COMMUNITY COLLEGE

AGE COHORT ANALYSIS OF CREDIT ENROLLMENT
MODERATE PROJECTIONS OF FALL CREDIT FTE ENROLLMENT
CORRECTED FOR OUT-OF-STATE STUDENTS AND EMPLOYEES

FALL 1988 (MODEL YEAR) - FALL 1994

FTE CREDIT ENROLLMENT AND PROJECTIONS

	TOTAL FTE All Students	OFFICIAL FTE No employees or out-of-state	RATIO of Official to total
Actual			
FALL 83	835.033	830.966	0.995
FALL 84	788.700	782.633	0.992
FALL 85	766.000	762.166	0.995
FALL 86	774.567	771.166	0.996
FALL 87	829.167	825.167	0.995
FALL 88	883.633	880.667	0.997
Correction Factor		0.995	

Projected	TOTAL FTE	OFFICIAL FTE (with correction factor applied)
FALL 89	905.38	900.836
FALL 90	927.13	922.477
FALL 91	925.76	921.107
FALL 92	924.38	919.737
FALL 93	923.00	918.367

Note: FTE enrollment figures include both Division Credit and Continuing Education Credit.

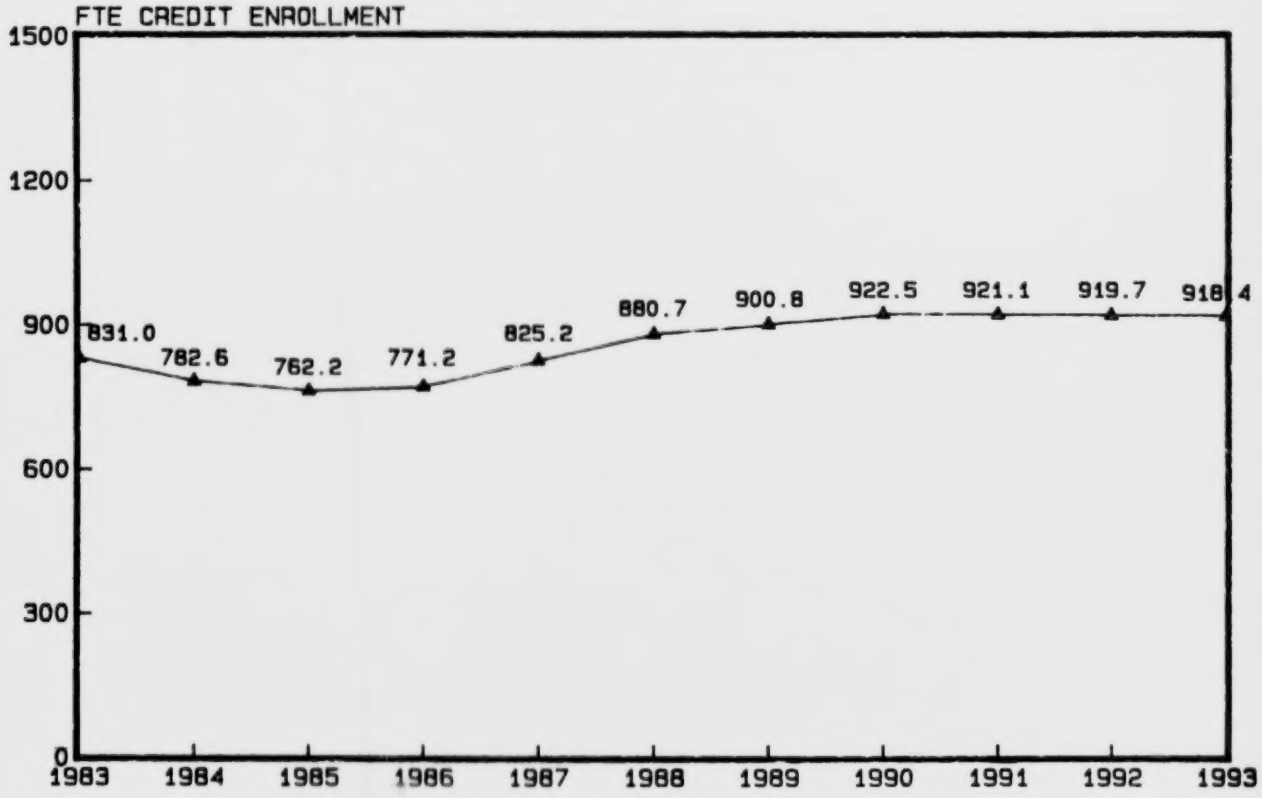
Howard Community College
Office of Research and Personnel

08-Dec-88
SKR/VEN

CHART 8-B

FTE FALL CREDIT ENROLLMENT PROJECTIONS

1983 - 1993



Howard Community College Office of Research and Personnel 12/14/88

CHART 9-A
HOWARD COMMUNITY COLLEGE
RELATIONSHIP OF FALL CREDIT FTE ENROLLMENT
TO FISCAL YEAR CREDIT ENROLLMENT FTE ENROLLMENT *

	FISCAL YEAR	CREDIT FALL FTE	CREDIT FY FTE	% FALL TO FY	FALL TO FY MULTIPLIER
ACTUAL	1982	769.32	1638.89	46.94%	2.130
------	1983	825.57	1860.70	44.37%	2.254
	1984	830.97	1756.36	47.31%	2.114
	1985	782.63	1693.53	45.00%	2.164
	1986	762.17	1639.91	47.02%	2.152
	1987	771.17	1685.24	45.76%	2.185
	1988	825.17	1782.40	46.30%	2.160
			Average Multiplier		2.166
	1989	880.67	1907.11		
PROJECTED					

	1990	900.836	1950.79	46.18%	2.166
	1991	922.477	1997.65	46.18%	2.166
	1992	921.107	1994.68	46.18%	2.166
	1993	919.737	1991.72	46.18%	2.166
	1994	918.367	1988.75	46.18%	2.166

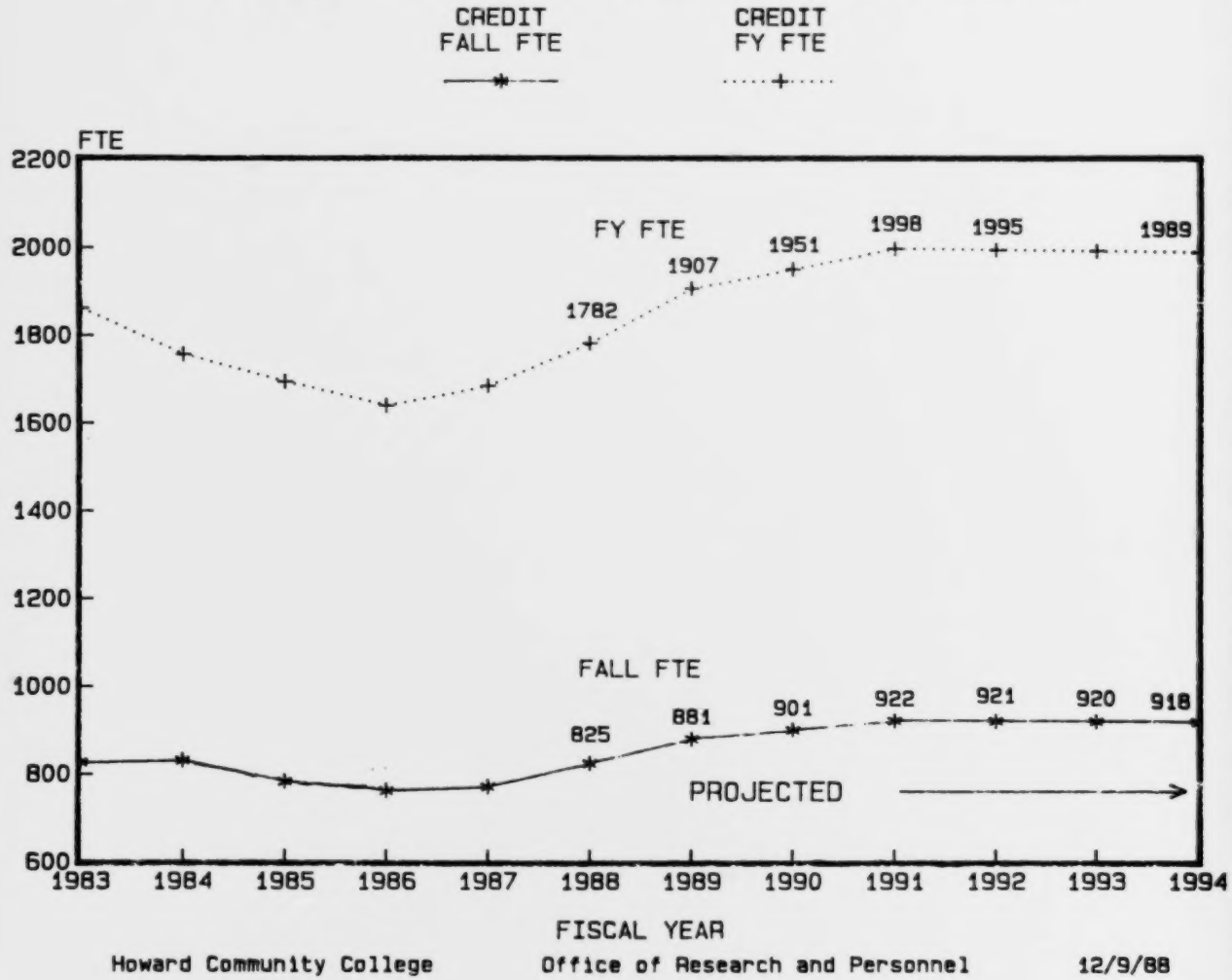
FTE figures here do not include out-of-state residents and HCC employees.

Howard Community College
Office of Research and Personnel

21-Dec-88
SKR/VEN

CHART 9-B

RELATIONSHIP OF FALL CREDIT FTE ENROLLMENT TO FISCAL YEAR CREDIT ENROLLMENT FTE ENROLLMENT



Howard Community College Office of Research and Personnel 12/9/88

CHART 10-A
HOWARD COMMUNITY COLLEGE
CREDIT-FREE ENROLLMENT PROJECTIONS--MODERATE

	FISCAL YEAR	CREDIT-FREE FTE--FALL *	CREDIT-FREE FTE -- FY	PERCENT CHANGE	% FALL TO FY	FALL TO FY MULTIPLIER
ACTUAL						
---------	FY1982	113.42	403.98		28.08%	3.562
	1983	173.54	471.04	16.60%	36.84%	2.714
	1984	195.48	611.14	29.74%	31.99%	3.126
	1985	214.39	646.69	5.82%	32.49%	3.016
	1986	210.14	708.96	9.63%	33.31%	3.374
	1987	236.13	750.25	5.82%	31.47%	3.177
	1988	302.55	838.27	11.73%	36.09%	2.771
	AVERAGE, MULTIPLIER FROM 1985-1988			8.25%	32.36%	3.085
	1989	322.15	890.56	6.24%		
PROJECTED						
---------	1990		942.43	5.82%		
	1991		997.32	5.82%		
	1992		1055.40	5.82%		
	1993		1116.87	5.82%		
	1994		1181.92	5.82%		

* "Fall" Credit-free FTE are those reported on the Nov.1 CC-3.

FTE figures are for credit-free courses named "eligible" by SBCC.

Howard Community College
Office of Research and Personnel

09-Dec-88
SKR/VEN

CHART 10-B

Credit-Free Enrollment Projections

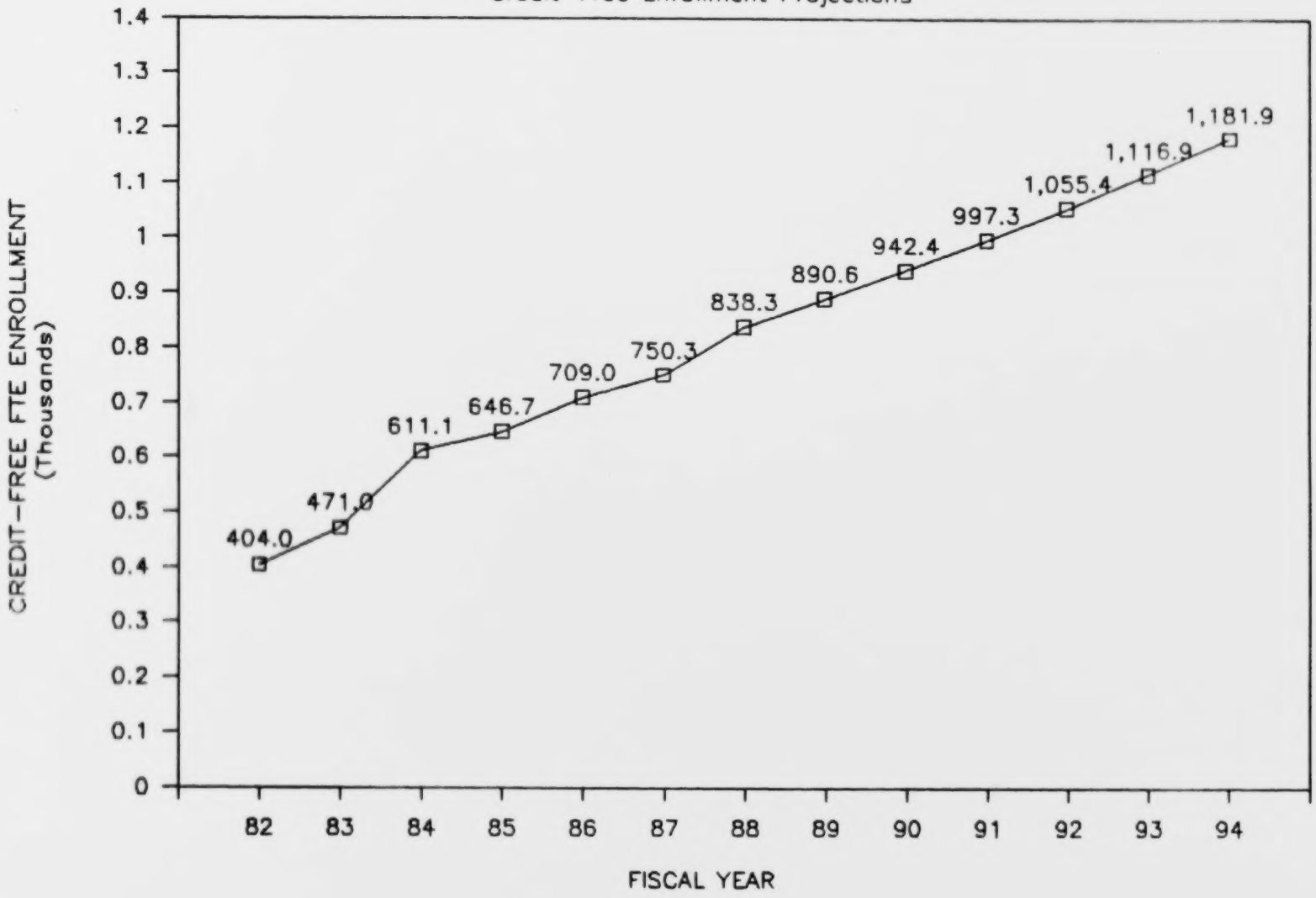


CHART 11
HOWARD COMMUNITY COLLEGE
MODERATE ENROLLMENT PROJECTIONS BY DISCIPLINE FOR FISCAL YEAR 1990

DISCIPLINE (BY DIVISION)	ACTUAL FTE FY85	FY86	FY87	FY88	RATIO VALUES	RESEARCH MODERATE OFFICIAL FY90
COMMUNICATION ARTS	169.10	178.70	189.87	209.37	12.09%	237.52
HEALTH CARE	4.33	12.00	4.03	4.03	0.55%	10.89
NURSING	81.93	80.17	69.27	56.57	3.32%	65.16
PHYSICAL ED.	26.00	29.03	29.73	26.30	1.71%	33.61
SOCIOLOGY	35.20	38.50	36.60	40.50	2.34%	46.02
ART	48.57	8.63	62.07	68.40	2.80%	54.96
EDUCATION	3.10	54.40	12.40	11.70	1.20%	23.53
LANGUAGE	10.90	35.60	11.10	14.80	1.48%	28.99
GEOGRAPHY	6.60	3.70	6.50	8.20	0.35%	6.92
HEALTH EDUCATION	11.93	5.90	11.93	13.27	0.84%	16.51
HISTORY	44.60	4.73	60.60	56.90	3.47%	68.12
MUSIC	22.57	42.80	25.17	20.80	1.27%	24.86
PHILOSOPHY	20.00	21.63	22.30	19.60	1.15%	22.56
POLITICAL SCIENCE	2.90	21.60	8.40	5.00	0.35%	6.86
PSYCHOLOGY	33.60	6.60	25.80	28.30	1.64%	32.24
THEATRE ARTS	9.97	3.70	13.63	12.07	1.95%	38.22
SPECIAL TOPICS	9.47	11.83	1.57	27.10	0.00%	0.00
VISION CARE	20.37	11.37	6.27	6.27	0.42%	8.29
CRIMINAL JUSTICE					0.28%	5.56
FINE ARTS					0.18%	3.58
HEALTH SCI/HUMAN/SOC SCI/PE	561.13	570.90	597.23	629.17	37.38%	734.39

CHART 11
HOWARD COMMUNITY COLLEGE
MODERATE ENROLLMENT PROJECTIONS BY DISCIPLINE FOR FISCAL YEAR 1990

DISCIPLINE (BY DIVISION)	ACTUAL FTE FY85	FY86	FY87	FY88	RATIO VALUES	RESEARCH MODERATE OFFICIAL FY90
ACCOUNTING	125.20	112.90	113.60	116.70	6.41%	125.85
BUS. ADMIN.	97.03	94.53	96.93	105.23	5.32%	104.49
COMPUTER AIDED DESIGN					0.73%	14.33
CONSTRUCTION TECH.	12.00	2.80	7.57	8.93	0.53%	10.46
DATA PROCESSING	129.63	120.20	127.27	122.07	0.00%	0.00
ECONOMICS	42.40	44.60	45.70	55.40	2.89%	56.68
MATHEMATICS	295.43	272.53	280.00	283.43	14.90%	292.67
SECRETARIAL SCI.	49.40	38.23	43.70	47.10	2.61%	51.29
BIOMED INSTRUMENTATION	4.83	3.80	2.33	0.67	0.00%	0.00
BIOLOGICAL SCIENCES	35.70	36.97	37.67	43.67	2.48%	48.75
CHEMISTRY	36.80	39.47	36.80	39.20	2.06%	40.49
ELECTRONICS	34.17	28.27	31.33	26.80	1.24%	24.40
ENGINEERING	8.33	11.90	10.77	10.07	0.63%	12.35
FINANCIAL PLANNING			5.80	9.70	0.48%	9.36
MANAGEMENT	36.30	35.70	34.60	35.10	2.02%	39.71
PHYSICS	13.63	16.00	15.17	13.07	0.74%	14.46
PLANT SCIENCE	9.63	9.93	7.03	8.47	0.42%	8.26
SCIENCE	69.23	60.33	53.73	51.60	3.30%	64.91
BIOMED TECHNOLOGY	2.60		1.10	0.90	0.16%	3.09
SPECIAL TOPICS	11.50		3.87	6.47	0.00%	0.00
COMPUTER SYSTEMS				12.67	7.10%	139.56
RETAILING				0.80	0.07%	1.46
TECHNOLOGY					0.05%	1.07
MATH/SCI/BUSINESS	1013.83	928.17	954.97	998.03	54.15%	1063.66
HUMAN DEVELOPMENT **	30.50	33.30	30.10	38.50	1.88%	36.98
LRC/TELECOURSES	33.80	33.67	55.13	67.13	2.68%	52.72
CO-OP ED	17.50	10.37	13.77	12.30	0.77%	15.08
CONTINUING ED CREDIT	51.01	72.27	47.54	48.43	3.14%	61.62
TOTALS	1707.78	1648.67	1698.74	1793.57		1,964.46

* Moderate discipline projections are based on Research Office's Official Total projections and Division ratios.

** Human Development has previously been included in the Health Sci/Human/SocSci/PE Division.

Note: FTE on this chart includes out-of-state students and employees.
Total FTE includes Division Credit and Continuing Education Credit.

Office of Research and Personnel
Howard Community College

21-Dec-88
VEN/DML

27/28

CHART11M.WK1

Memorandum

DATE: December 8, 1988 APPENDIX A

TO: Myrtle E. B. Dorsey, Associate Dean of Student Services

FROM: Barbara C. Greenfeld, Coordinator of Admissions

RE: Tuition at UMBC, TSU, CCC

Susan Radcliffe requested information regarding tuition at UMBC, UMCP, TSU and CCC in 1988-89. The following is the information I forwarded. In the process of compiling it, I became somewhat concerned about our own tuition, particularly if there are any possibilities it will be raised. Of most concern is our tuition for out-of-state/foreign students and our tuition, in general, compared to CCC.

1. UMBC

In-state tuition and mandatory fees (for 9+ credits) - 1,008.00/semester
Out-of-state/county tuition & fees (for 9+ credits) - $2,701.00/semester
Per credit cost (less than 9 credits) - $92.00/credit hour

2. UMCP

In-state tuition and mandatory fees - $1,896.00/year
Out-of-state/county tuition and mandatory fees - $5,282.00/year
$92.00/credit hour
Per credit cost (8 semester hours or less) - $70.50/mandatory fee/semester

3. TSU

In-state tuition and mandatory fees (12+ credits) - $951.00/semester
Out-of-state tuition and fees (12+ credits) - $1,685.00/semester
Per credit cost (less than 12 credits) - $63.00/credit
$87.50/semester fee

4. CCC

In-county tuition (12+ credits) - $33.00/credit
In-state tuition (12+ credits) - $59.50/credit
Out-of-state/country tuition - $115.00

Tuition credit hour for each credit beyond 12:
In-county tuition - $25.00/credit
In-state tuition - $38.00/credit
Out-of-state/country - $64.00/credit

APPENDIX B

HOWARD COMMUNITY COLLEGE
AGE COHORT ANALYSIS OF CREDIT ENROLLMENT
MODEL YEAR - FALL 1988 - MODERATE PROJECTIONS

	HCC FTE - FALL 1988			HOWARD COUNTY 1988			FTE PARTICIPATION RATE			
Agegroup	Male	Female	Total	Male	Female	Total	Male	Female	Total	
0 - 14	0.00	0.00	0.00	17,392	16,181	33,573	0.000000	0.000000	0.000000	0
15 - 19	124.30	135.27	259.57	5,632	5,221	10,852	0.022071	0.025910	0.023918	0
20 - 24	144.10	131.63	275.73	7,249	6,951	14,200	0.019878	0.018938	0.019418	0
25 - 29	49.80	67.07	116.87	8,228	8,390	16,618	0.006053	0.007993	0.007033	0
30 - 34	24.03	54.20	78.23	7,752	7,858	15,610	0.003100	0.006897	0.005012	0
35 - 39	11.33	39.80	51.13	7,980	8,531	16,510	0.001420	0.004666	0.003097	0
40 - 44	9.50	33.80	43.30	7,340	7,281	14,621	0.001294	0.004642	0.002961	0
45 - 49	4.33	22.23	26.57	5,478	5,304	10,782	0.000791	0.004192	0.002464	0
50 - 54	4.53	8.80	13.33	4,249	3,899	8,148	0.001067	0.002257	0.001636	0
55 - 59	1.17	3.23	4.40	3,229	3,059	6,288	0.000361	0.001057	0.000700	0
60 +	6.10	8.40	14.50	6,400	8,635	15,035	0.000953	0.000973	0.000964	0
TOTAL	379.20	504.43	883.63	80,928	81,310	162,239	0.4686%	0.6204%	0.5447%	

HOWARD COMMUNITY COLLEGE
AGE COHORT ANALYSIS OF CREDIT ENROLLMENT
PROJECTION FOR - FALL 1989 - MODERATE PROJECTIONS

	HCC FTE - PROJ. FALL 1989			HOWARD COUNTY 1989			FTE PARTICIPATION RATE		
Agegroup	Male	Female	Total	Male	Female	Total	Male	Female	Total
0 - 14				18,102	16,837	34,939	0.000000	0.000000	0.000000
15 - 19	123.39	134.05	257.44	5,590	5,174	10,764	0.022071	0.025910	0.023918
20 - 24	145.66	133.14	278.80	7,328	7,030	14,358	0.019878	0.018938	0.019418
25 - 29	54.64	73.72	128.36	9,027	9,223	18,250	0.006053	0.007993	0.007033
30 - 34	24.81	55.40	80.21	8,002	8,032	16,034	0.003100	0.006897	0.005012
35 - 39	11.61	40.64	52.25	8,176	8,710	16,886	0.001420	0.004666	0.003097
40 - 44	10.03	35.96	45.99	7,749	7,746	15,495	0.001294	0.004642	0.002961
45 - 49	4.63	23.86	28.48	5,848	5,691	11,539	0.000791	0.004192	0.002464
50 - 54	4.75	9.29	14.04	4,452	4,116	8,569	0.001067	0.002257	0.001636
55 - 59	1.21	3.34	4.55	3,342	3,164	6,506	0.000361	0.001057	0.000700
60 +	6.42	8.84	15.27	6,736	9,093	15,829	0.000953	0.000973	0.000964
TOTAL	387.14	518.25	905.38	84,353	84,816	169,169	0.4970%	0.8121%	0.6545%

PROJECTED GROWTH 1988 - 1989

HCC N	HCC %	COUNTY N	COUNTY %
22	2.5%	6930.2	4.3%

HOWARD COMMUNITY COLLEGE
AGE COHORT ANALYSIS OF CREDIT ENROLLMENT
PROJECTION FOR - FALL 1990 - MODERATE PROJECTIONS

	HCC FTE - PROJ. FALL 1990			HOWARD COUNTY 1990			FTE PARTICIPATION RATE		
Agegroup	Male	Female	Total	Male	Female	Total	Male	Female	Total
0 - 14				18,813	17,493	36,306	0.000000	0.000000	0.000000
15 - 19	122.47	132.84	255.31	5,549	5,127	10,676	0.022071	0.025910	0.023918
20 - 24	147.22	134.65	281.87	7,406	7,110	14,516	0.019878	0.018938	0.019418
25 - 29	59.47	80.38	139.86	9,826	10,056	19,882	0.006053	0.007993	0.007033
30 - 34	25.58	56.60	82.18	8,252	8,206	16,458	0.003100	0.006897	0.005012
35 - 39	11.89	41.47	53.36	8,373	8,889	17,262	0.001420	0.004666	0.003097
40 - 44	10.56	38.12	48.67	8,158	8,211	16,369	0.001294	0.004642	0.002961
45 - 49	4.92	25.48	30.40	6,217	6,079	12,296	0.000791	0.004192	0.002464
50 - 54	4.97	9.78	14.75	4,656	4,333	8,989	0.001067	0.002257	0.001636
55 - 59	1.25	3.45	4.70	3,455	3,268	6,723	0.000361	0.001057	0.000700
60 +	6.74	9.29	16.03	7,072	9,550	16,622	0.000953	0.000973	0.000964
TOTAL	395.07	532.06	927.13	87,777	88,322	176,099	0.4970%	0.8121%	0.6545%

PROJECTED GROWTH 1989 - 1990

HCC		COUNTY	
N	%	N	%
22	2.4%	6,930	4.1%

HOWARD COMMUNITY COLLEGE
AGE COHORT ANALYSIS OF CREDIT ENROLLMENT
PROJECTION FOR - FALL 1991 - MODERATE PROJECTIONS

	HCC FTE - PROJ. FALL 1991			HOWARD COUNTY 1991			FTE PARTICIPATION RATE		
Agegroup	Male	Female	Total	Male	Female	Total	Male	Female	Total
0 - 14				19,315	17,983	37,297	0.000000	0.000000	0.000000
15 - 19	123.97	134.21	258.19	5,617	5,180	10,797	0.022071	0.025910	0.023918
20 - 24	142.06	129.13	271.20	7,147	6,819	13,966	0.019878	0.018938	0.019418
25 - 29	57.62	77.47	135.09	9,520	9,692	19,211	0.006053	0.007993	0.007033
30 - 34	27.34	60.95	88.29	8,819	8,836	17,655	0.003100	0.006897	0.005012
35 - 39	11.99	41.39	53.38	8,443	8,871	17,315	0.001420	0.004666	0.003097
40 - 44	10.67	38.80	49.47	8,241	8,358	16,600	0.001294	0.004642	0.002961
45 - 49	5.22	27.31	32.53	6,599	6,515	13,113	0.000791	0.004192	0.002464
50 - 54	5.31	10.59	15.89	4,975	4,691	9,666	0.001067	0.002257	0.001636
55 - 59	1.32	3.67	4.98	3,651	3,468	7,119	0.000361	0.001057	0.000700
60 +	7.08	9.67	16.74	7,423	9,937	17,360	0.000953	0.000973	0.000964
TOTAL	392.58	533.18	925.76	89,749	90,350	180,099	0.4970%	0.8121%	0.6545%

PROJECTED GROWTH 1990 - 1991

HCC	N	%	COUNTY	N	%
	-1	-0.1%		4,000	2.3%

HOWARD COMMUNITY COLLEGE
AGE COHORT ANALYSIS OF CREDIT ENROLLMENT
PROJECTION FOR - FALL 1992 - MODERATE PROJECTIONS

	HCC FTE - PROJ. FALL 1992			HOWARD COUNTY 1992			FTE PARTICIPATION RATE		
Agegroup	Male	Female	Total	Male	Female	Total	Male	Female	Total
0 - 14				19,816	18,473	38,289	0.000000	0.000000	0.000000
15 - 19	125.47	135.59	261.06	5,685	5,233	10,918	0.022071	0.025910	0.023918
20 - 24	136.91	123.62	260.53	6,888	6,528	13,415	0.019878	0.018938	0.019418
25 - 29	55.77	74.56	130.32	9,213	9,328	18,541	0.006053	0.007993	0.007033
30 - 34	29.10	65.29	94.39	9,385	9,466	18,852	0.003100	0.006897	0.005012
35 - 39	12.09	41.31	53.40	8,514	8,853	17,367	0.001420	0.004666	0.003097
40 - 44	10.77	39.48	50.26	8,324	8,506	16,830	0.001294	0.004642	0.002961
45 - 49	5.52	29.13	34.66	6,980	6,950	13,930	0.000791	0.004192	0.002464
50 - 54	5.65	11.39	17.04	5,295	5,049	10,343	0.001067	0.002257	0.001636
55 - 59	1.39	3.88	5.27	3,847	3,669	7,515	0.000361	0.001057	0.000700
60 +	7.41	10.04	17.45	7,775	10,323	18,098	0.000953	0.000973	0.000964
TOTAL	390.08	534.30	924.38	91,722	92,377	184,099	0.4970%	0.8121%	0.6545%

PROJECTED GROWTH 1991 - 1992

HCC N	HCC %	COUNTY N	COUNTY %
-1	-0.1%	4,000	2.2%

HOWARD COMMUNITY COLLEGE
AGE COHORT ANALYSIS OF CREDIT ENROLLMENT
PROJECTION FOR - FALL 1993 - MODERATE PROJECTIONS

	HCC FTE - PROJ. 1993			HOWARD COUNTY 1993			FTE PARTICIPATION RATE		
Agegroup	Male	Female	Total	Male	Female	Total	Male	Female	Total
0 - 14				20,318	18,962	39,280	0.000000	0.000000	0.000000
15 - 19	126.98	136.96	263.94	5,753	5,286	11,039	0.022071	0.025910	0.023918
20 - 24	131.76	118.10	249.86	6,628	6,236	12,865	0.019878	0.018938	0.019418
25 - 29	53.91	71.65	125.56	8,907	8,963	17,870	0.006053	0.007993	0.007033
30 - 34	30.85	69.64	100.49	9,952	10,097	20,048	0.003100	0.006897	0.005012
35 - 39	12.19	41.22	53.41	8,584	8,836	17,420	0.001420	0.004666	0.003097
40 - 44	10.88	40.17	51.05	8,408	8,653	17,061	0.001294	0.004642	0.002961
45 - 49	5.82	30.96	36.78	7,362	7,386	14,748	0.000791	0.004192	0.002464
50 - 54	5.99	12.20	18.19	5,614	5,406	11,021	0.001067	0.002257	0.001636
55 - 59	1.46	4.09	5.55	4,042	3,869	7,912	0.000361	0.001057	0.000700
60 +	7.75	10.42	18.16	8,126	10,710	18,836	0.000953	0.000973	0.000964
TOTAL	387.59	535.41	923.00	93,694	94,405	188,099	0.4970%	0.8121%	0.6545%

PROJECTED GROWTH 1992 - 1993

HCC			COUNTY		
	N	%		N	%
	-1	-0.1%		4,000	2.2%

APPENDIX C: LOW PROJECTIONS
HOWARD COMMUNITY COLLEGE
AGE COHORT ANALYSIS OF CREDIT ENROLLMENT
MODEL YEAR - FALL 1987 - LOW PROJECTIONS

	HCC FTE - FALL 1987			HOWARD COUNTY 1987			FTE PARTICIPATION RATE			
Agegroup	Male	Female	Total	Male	Female	Total	Male	Female	Total	
0 - 14	0.000	0.000	0.00	16,681	15,525	32,206	0.000000	0.000000	0.000000	0
15 - 19	111.200	129.100	240.30	5,673	5,267	10,941	0.019601	0.024509	0.021964	0
20 - 24	124.800	123.100	247.90	7,171	6,871	14,042	0.017404	0.017915	0.017654	0
25 - 29	45.033	62.500	107.53	7,428	7,558	14,986	0.006062	0.008270	0.007176	0
30 - 34	26.133	51.467	77.60	7,503	7,684	15,187	0.003483	0.006698	0.005110	0
35 - 39	13.433	41.700	55.13	7,783	8,351	16,135	0.001726	0.004993	0.003417	0
40 - 44	8.667	35.167	43.83	6,930	6,817	13,747	0.001251	0.005159	0.003189	0
45 - 49	4.267	19.300	23.57	5,109	4,916	10,025	0.000835	0.003926	0.002351	0
50 - 54	2.967	10.800	13.77	4,045	3,683	7,728	0.000733	0.002933	0.001781	0
55 - 59	1.333	2.733	4.07	3,116	2,955	6,071	0.000428	0.000925	0.000670	0
60 +	6.300	9.167	15.47	6,064	8,178	14,242	0.001039	0.001121	0.001086	0
TOTAL	344.13	485.03	829.17	77,504	77,805	155,308	0.4440%	0.6234%	0.5339%	

HOWARD COMMUNITY COLLEGE
AGE COHORT ANALYSIS OF CREDIT ENROLLMENT
PROJECTION FOR - FALL 1989 - LOW PROJECTIONS

	HCC FTE - PROJ. FALL 1989			HOWARD COUNTY 1989			FTE PARTICIPATION RATE		
Agegroup	Male	Female	Total	Male	Female	Total	Male	Female	Total
0 - 14				18,102	16,837	34,939	0.000000	0.000000	0.000000
15 - 19	109.58	126.81	236.38	5,590	5,174	10,764	0.019601	0.024509	0.021964
20 - 24	127.53	125.95	253.48	7,328	7,030	14,358	0.017404	0.017915	0.017654
25 - 29	54.72	76.27	131.00	9,027	9,223	18,250	0.006062	0.008270	0.007176
30 - 34	27.87	53.80	81.67	8,002	8,032	16,034	0.003483	0.006698	0.005110
35 - 39	14.11	43.49	57.60	8,176	8,710	16,886	0.001726	0.004993	0.003417
40 - 44	9.69	39.96	49.65	7,749	7,746	15,495	0.001251	0.005159	0.003189
45 - 49	4.88	22.34	27.23	5,848	5,691	11,539	0.000835	0.003926	0.002351
50 - 54	3.27	12.07	15.34	4,452	4,116	8,569	0.000733	0.002933	0.001781
55 - 59	1.43	2.93	4.36	3,342	3,164	6,506	0.000428	0.000925	0.000670
60 +	7.00	10.19	17.19	6,736	9,093	15,829	0.001039	0.001121	0.001086
TOTAL	360.08	513.82	873.90	84,353	84,816	169,169	0.4970%	0.8121%	0.6545%

PROJECTED GROWTH 1988 - 1989

HCC N	%	COUNTY N	%
45	5.4%	13860.4	8.9%

HOWARD COMMUNITY COLLEGE
AGE COHORT ANALYSIS OF CREDIT ENROLLMENT
PROJECTION FOR - FALL 1990 - LOW PROJECTIONS

	HCC FTE - PROJ. FALL 1990			HOWARD COUNTY 1990			FTE PARTICIPATION RATE		
Agegroup	Male	Female	Total	Male	Female	Total	Male	Female	Total
0 - 14				18,813	17,493	36,306	0.000000	0.000000	0.000000
15 - 19	108.77	125.66	234.42	5,549	5,127	10,676	0.019601	0.024509	0.021964
20 - 24	128.89	127.38	256.27	7,406	7,110	14,516	0.017404	0.017915	0.017654
25 - 29	59.57	83.16	142.73	9,826	10,056	19,882	0.006062	0.008270	0.007176
30 - 34	28.74	54.96	83.71	8,252	8,206	16,458	0.003483	0.006698	0.005110
35 - 39	14.45	44.38	58.84	8,373	8,889	17,262	0.001726	0.004993	0.003417
40 - 44	10.20	42.36	52.56	8,158	8,211	16,369	0.001251	0.005159	0.003189
45 - 49	5.19	23.86	29.06	6,217	6,079	12,296	0.000835	0.003926	0.002351
50 - 54	3.41	12.71	16.12	4,656	4,333	8,989	0.000733	0.002933	0.001781
55 - 59	1.48	3.02	4.50	3,455	3,268	6,723	0.000428	0.000925	0.000670
60 +	7.35	10.70	18.05	7,072	9,550	16,622	0.001039	0.001121	0.001086
TOTAL	368.06	528.21	896.26	87,777	88,322	176,099	0.4970%	0.8121%	0.6545%

PROJECTED GROWTH 1989 - 1990

HCC			COUNTY		
	N	%		N	%
	22	2.6%		6,930	4.1%

HOWARD COMMUNITY COLLEGE
AGE COHORT ANALYSIS OF CREDIT ENROLLMENT
PROJECTION FOR - FALL 1991 - LOW PROJECTIONS

	HCC FTE - PROJ. FALL 1991			HOWARD COUNTY 1991			FTE PARTICIPATION RATE		
Agegroup	Male	Female	Total	Male	Female	Total	Male	Female	Total
0 - 14				19,315	17,983	37,297	0.000000	0.000000	0.000000
15 - 19	110.10	126.96	237.06	5,617	5,180	10,797	0.019601	0.024509	0.021964
20 - 24	124.38	122.16	246.54	7,147	6,819	13,966	0.017404	0.017915	0.017654
25 - 29	57.71	80.15	137.86	9,520	9,692	19,211	0.006062	0.008270	0.007176
30 - 34	30.72	59.18	89.90	8,819	8,836	17,655	0.003483	0.006698	0.005110
35 - 39	14.57	44.30	58.87	8,443	8,871	17,315	0.001726	0.004993	0.003417
40 - 44	10.31	43.12	53.43	8,241	8,358	16,600	0.001251	0.005159	0.003189
45 - 49	5.51	25.57	31.09	6,599	6,515	13,113	0.000835	0.003926	0.002351
50 - 54	3.65	13.76	17.41	4,975	4,691	9,666	0.000733	0.002933	0.001781
55 - 59	1.56	3.21	4.77	3,651	3,468	7,119	0.000428	0.000925	0.000670
60 +	7.71	11.14	18.85	7,423	9,937	17,360	0.001039	0.001121	0.001086
TOTAL	366.22	529.55	895.77	89,749	90,350	180,099	0.4070%	0.8121%	0.6545%

PROJECTED GROWTH 1990 - 1991

HCC			COUNTY		
	N	%		N	%
	0	-0.1%		4,000	2.3%

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HOWARD COMMUNITY COLLEGE
AGE COHORT ANALYSIS OF CREDIT ENROLLMENT
PROJECTION FOR - FALL 1992 - LOW PROJECTIONS

	HCC FTE - PROJ. FALL 1992			HOWARD COUNTY 1992			FTE PARTICIPATION RATE		
Agegroup	Male	Female	Total	Male	Female	Total	Male	Female	Total
0 - 14				19,816	18,473	38,289	0.000000	0.000000	0.000000
15 - 19	111.43	128.26	239.69	5,685	5,233	10,918	0.019601	0.024509	0.021964
20 - 24	119.87	116.94	236.82	6,888	6,528	13,415	0.017404	0.017915	0.017654
25 - 29	55.85	77.14	132.99	9,213	9,328	18,541	0.006062	0.008270	0.007176
30 - 34	32.69	63.41	96.10	9,385	9,466	18,852	0.003483	0.006698	0.005110
35 - 39	14.69	44.21	58.90	8,514	8,853	17,367	0.001726	0.004993	0.003417
40 - 44	10.41	43.88	54.29	8,324	8,506	16,830	0.001251	0.005159	0.003189
45 - 49	5.83	27.29	33.11	6,980	6,950	13,930	0.000835	0.003926	0.002351
50 - 54	3.88	14.81	18.69	5,295	5,049	10,343	0.000733	0.002933	0.001781
55 - 59	1.65	3.39	5.04	3,847	3,669	7,515	0.000428	0.000925	0.000670
60 +	8.08	11.57	19.65	7,775	10,323	18,098	0.001039	0.001121	0.001086
TOTAL	364.39	530.89	895.27	91,722	92,377	184,099	0.4970%	0.8121%	0.6545%

PROJECTED GROWTH 1991 - 1992

HCC		COUNTY	
N	%	N	%
0	-0.1%	4,000	2.2%

HOWARD COMMUNITY COLLEGE
AGE COHORT ANALYSIS OF CREDIT ENROLLMENT
PROJECTION FOR - FALL 1993 - LOW PROJECTIONS

	HCC FTE - PROJ. 1993			HOWARD COUNTY 1993			FTE PARTICIPATION RATE		
Agegroup	Male	Female	Total	Male	Female	Total	Male	Female	Total
0 - 14				20,318	18,962	39,280	0.000000	0.000000	0.000000
15 - 19	112.76	129.56	242.32	5,753	5,286	11,039	0.019601	0.024509	0.021964
20 - 24	115.36	111.73	227.09	6,628	6,236	12,865	0.017404	0.017915	0.017654
25 - 29	54.00	74.13	128.12	8,907	8,963	17,870	0.006062	0.008270	0.007176
30 - 34	34.66	67.63	102.29	9,952	10,097	20,048	0.003483	0.006698	0.005110
35 - 39	14.82	44.12	58.93	8,584	8,836	17,420	0.001726	0.004993	0.003417
40 - 44	10.51	44.64	55.16	8,408	8,653	17,061	0.001251	0.005159	0.003189
45 - 49	6.15	29.00	35.14	7,362	7,386	14,748	0.000835	0.003926	0.002351
50 - 54	4.12	15.86	19.97	5,614	5,406	11,021	0.000733	0.002933	0.001781
55 - 59	1.73	3.58	5.31	4,042	3,869	7,912	0.000428	0.000925	0.000670
60 +	8.44	12.00	20.45	8,126	10,710	18,836	0.001039	0.001121	0.001086
TOTAL	362.55	532.23	894.78	93,694	94,405	188,099	0.4970%	0.8121%	0.6545%

PROJECTED GROWTH 1992 - 1993

HCC N	HCC %	COUNTY N	COUNTY %
0	-0.1%	4,000	2.2%

APPENDIX C: CHART 8-A

HOWARD COMMUNITY COLLEGE

AGE COHORT ANALYSIS OF CREDIT ENROLLMENT
LOW PROJECTIONS OF FALL CREDIT FTE ENROLLMENT
CORRECTED FOR OUT-OF-STATE STUDENTS AND EMPLOYEES

FALL 1989 - FALL 1993
(Fall 1987 is the Model Year)

FTE CREDIT ENROLLMENT AND PROJECTIONS

	TOTAL FTE All Students	OFFICIAL FTE No employees or out-of-state	RATIO of Official to total
Actual			
FALL 83	835.033	830.966	0.995
FALL 84	788.700	782.633	0.992
FALL 85	766.000	762.166	0.995
FALL 86	774.567	771.933	0.997
FALL 87	829.167	825.167	0.995
FALL 88	883.633	880.667	0.997
Correction Factor		0.995	
Projected		OFFICIAL FTE (with correction factor applied)	
FALL 89	873.90	869.652	
FALL 90	896.26	891.909	
FALL 91	895.77	891.418	
FALL 92	895.27	890.926	
FALL 93	894.79	890.443	

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APPENDIX C: CHART 9-A
HOWARD COMMUNITY COLLEGE
RELATIONSHIP OF FALL CREDIT FTE ENROLLMENT
TO FISCAL YEAR CREDIT ENROLLMENT FTE ENROLLMENT *

	FISCAL YEAR	CREDIT FALL FTE	CREDIT FY FTE	% FALL TO FY	FALL TO FY MULTIPLIER
ACTUAL	FY1982	769.32	1638.89	46.94%	2.130
------	1983	825.57	1860.70	44.37%	2.254
	1984	830.97	1756.36	47.31%	2.114
	1985	782.63	1693.53	45.00%	2.164
	1986	762.17	1639.91	47.02%	2.152
	1987	771.17	1685.24	45.76%	2.185
	1988	825.17	1782.40	46.30%	2.160
			Average Multiplier		2.166
PROJECTED					

	1989	880.67	1907.11	46.18%	2.166
	1990	869.65	1883.26	46.18%	2.166
	1991	891.91	1931.45	46.18%	2.166
	1992	891.42	1930.39	46.18%	2.166
	1993	890.93	1929.32	46.18%	2.166
	1994	890.44	1928.28	46.18%	2.166

FTE figures here do not include out-of-state residents and HCC employees.

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APPENDIX C: CHART10-A
HOWARD COMMUNITY COLLEGE
CREDIT-FREE ENROLLMENT PROJECTIONS--LOW

	FISCAL YEAR	CREDIT-FREE FTE--FALL *	CREDIT-FREE FTE -- FY	PERCENT CHANGE	% FALL TO FY	FALL TO FY MULTIPLIER
ACTUAL						
---------	FY1982	113.42	403.98		28.08%	3.562
	1983	173.54	471.04	16.60%	36.84%	2.714
	1984	195.48	611.14	29.74%	31.99%	3.126
	1985	214.39	646.69	5.82%	32.49%	3.016
	1986	210.14	708.96	9.63%	33.31%	3.374
	1987	236.13	750.25	5.82%	31.47%	3.177
	1988	302.55	838.27	11.73%	36.09%	2.771
	AVERAGE, MULTIPLIER FROM 1985-1988			8.25%	32.36%	3.085
	1989	322.15	890.56	6.24%	NOTE:	
PROJECTED						
---------	1990		914.00	2.63%	These projections use projections from the Executive Director of Continuing Education for 1989 and 1990, and continue using the same percentage of growth as that from 1989 to 1990.	
	1991		938.05	2.63%		
	1992		962.74	2.63%		
	1993		988.07	2.63%		
	1994		1014.08	2.63%		

* "Fall" Credit-free FTE are those reported on the Nov.1 CC-3.

FTE figures are for credit-free courses named "eligible" by SBCC.

Howard Community College
Office of Research and Personnel

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APPENDIX D: CHART 10-A
HOWARD COMMUNITY COLLEGE
CREDIT-FREE ENROLLMENT PROJECTIONS--HIGH

	FISCAL YEAR	CREDIT-FREE FTE--FALL *	CREDIT-FREE FTE -- FY	PERCENT CHANGE	% FALL TO FY	FALL TO FY MULTIPLIER
ACTUAL						
	1983	173.54	471.04		36.84%	2.714
	1984	195.48	611.14	29.74%	31.99%	3.126
	1985	214.39	646.69	5.82%	32.49%	3.016
	1986	210.14	708.96	9.63%	33.31%	3.374
	1987	236.13	750.25	5.82%	31.47%	3.177
	1988	302.55	838.27	11.73%	36.09%	2.771
	AVERAGE MULTIPLIER FROM 1985-1988			8.25%	33.22%	3.030
	1989	322.15	976.05	16.44%		
PROJECTED						
	1990		1032.89	5.82%		
	1991		1093.05	5.82%		
	1992		1156.71	5.82%		
	1993		1224.08	5.82%		
	1994		1295.37	5.82%		

* "Fall" Credit-free FTE are those reported on the Nov.1 CC-3.

FTE figures are for credit-free courses named "eligible" by SBCC.

Howard Community College
Office of Research and Personnel

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APPENDIX E: CHART 11
HOWARD COMMUNITY COLLEGE
LOW ENROLLMENT PROJECTIONS BY DISCIPLINE FOR FISCAL YEAR

DISCIPLINE (BY DIVISION)	ACTUAL FTE FY85	FY86	FY87	FY88	DISCIPLINE % OF TOTAL AVERAGE FY85,86,87,88	PROJECTIONS TOTAL FISCAL YEAR FY89	FY90
COMMUNICATIONS	169.10	178.70	189.87	209.37	10.90%	209.29	206.67
HEALTH	4.33	12.00	4.03	4.03	0.36%	6.93	6.85
NURSING	81.93	80.17	69.27	56.57	4.22%	81.10	80.09
PHYSICAL ED.	26.00	29.03	29.73	26.30	1.63%	31.21	30.82
SOCIOLOGY	35.20	38.50	36.60	40.50	2.20%	42.29	41.76
ART	48.57	8.63	62.07	68.40	2.71%	52.02	51.37
EDUCATION	3.10	54.40	12.40	11.70	1.22%	23.35	23.06
FRENCH	4.70	7.90	4.00	6.40	0.34%	6.47	6.38
GEOGRAPHY	6.60	3.70	6.50	8.20	0.36%	6.97	6.88
HEALTH EDUCATION	11.93	5.90	11.93	13.27	0.62%	12.00	11.85
HISTORY	44.60	4.73	60.60	56.90	2.41%	46.28	45.70
MUSIC	22.57	42.80	25.17	20.80	1.64%	31.49	31.10
PHILOSOPHY	20.00	21.63	22.30	19.60	1.22%	23.47	23.18
POLITICAL SCIENCE	2.90	21.60	8.40	5.00	0.56%	10.82	10.68
PSYCHOLOGY	33.60	6.60	25.80	28.30	1.37%	26.24	25.91
SPANISH	6.20	27.70	7.10	8.40	0.73%	14.07	13.89
THEATRE ARTS	9.97	3.70	13.63	12.07	0.57%	10.96	10.83
SPECIAL TOPICS	9.47	11.83	1.57	27.10	0.72%	13.80	13.63
VISION CARE	20.37	11.37	6.27	6.27	0.65%	12.48	12.33
HEALTH SCI/HUMAN/SOC SCI/PE	561.13	570.90	597.23	629.17	34.43%	661.23	652.96

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APPENDIX E: CHART 11
HOWARD COMMUNITY COLLEGE
LOW ENROLLMENT PROJECTIONS BY DISCIPLINE FOR FISCAL YEAR

DISCIPLINE (BY DIVISION)	ACTUAL FTE FY85	FY86	FY87	FY88	DISCIPLINE % OF TOTAL AVERAGE FY85,86,87,88	PROJECTIONS TOTAL FISCAL YEAR FY89	FY90
ACCOUNTING	125.20	112.90	113.60	116.70	6.84%	131.42	129.78
BUS. ADMIN.	97.03	94.53	96.93	105.23	5.75%	110.38	108.99
CONSTRUCTION TECH.	12.00	2.80	7.57	8.93	0.45%	8.72	8.61
DATA PROCESSING	129.63	120.20	127.27	122.07	7.29%	140.09	138.34
ECONOMICS	42.40	44.60	45.70	55.40	2.74%	52.65	52.00
MATHEMATICS	295.43	272.53	280.00	283.43	16.53%	317.43	313.46
SECRETARIAL SCI.	49.40	38.23	43.70	47.10	2.60%	49.98	49.36
BIOMED INSTRUMENTATION	4.83	3.80	2.33	0.67	0.17%	3.30	3.26
BIOLOGICAL SCIENCES	35.70	36.97	37.67	43.67	2.25%	43.14	42.60
CHEMISTRY	36.80	39.47	36.80	39.20	2.23%	42.73	42.20
ELECTRONICS	34.17	28.27	31.33	26.80	1.76%	33.87	33.44
ENGINEERING GRAPHICS	8.33	11.90	10.77	10.07	0.60%	11.55	11.40
FINANCIAL PLANNING			5.80	9.70	0.22%	4.24	4.18
MANAGEMENT	36.30	35.70	34.60	35.10	2.07%	39.78	39.28
PHYSICS	13.63	16.00	15.17	13.07	0.85%	16.28	16.07
PLANT SCIENCE	9.63	9.93	7.03	8.47	0.51%	9.86	9.73
SCIENCE	69.23	60.33	53.73	51.60	3.44%	66.03	65.21
BIOMED TECHNOLOGY	2.60		1.10	0.90	0.07%	1.28	1.27
SPECIAL TOPICS	11.50		3.87	6.47	0.32%	6.06	5.98
COMPUTER SYSTEMS				12.67			
RETAILING				0.80			
MATH/SCI/BUSINESS	1013.83	928.16	954.97	998.03	56.88%	1092.39	1078.73
HUMAN DEVELOPMENT **	30.50	33.30	30.10	38.50	1.93%	37.09	36.62
LRC/TELECOURSES	33.80	33.67	55.13	67.13	2.75%	52.86	52.20
CO-OP ED	17.50	10.37	13.77	12.30	0.79%	15.12	14.93
CONTINUING ED CREDIT	51.01	72.27	47.54	48.43	3.22%	61.79	61.02
TOTALS	1707.78	1648.66	1698.74	1793.57		1920.47	1896.45

** Human Development has previously been included in the Health Sci/Human/SocSci/PE Division.

Note: FTE on this chart includes out-of-state students and employees.
Total FTE includes Division Credit and Continuing Education Credit.

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APPENDIX F: CHART 11
HOWARD COMMUNITY COLLEGE
HIGH ENROLLMENT PROJECTIONS BY DISCIPLINE FOR FISCAL YEAR 1990

DISCIPLINE (BY DIVISION)	ACTUAL FTE FY85	FY86	FY87	FY88	FY90	FY90 % /TOT
COMMUNICATION ARTS	169.10	178.70	189.87	209.37	243.60	12.09%
HEALTH CARE	4.33	12.00	4.03	4.03	11.17	0.55%
NURSING	81.93	80.17	69.27	56.57	66.83	3.32%
PHYSICAL ED.	26.00	29.03	29.73	26.30	34.47	1.71%
SOCIOLOGY	35.20	38.50	36.60	40.50	47.20	2.34%
ART	48.57	8.63	62.07	68.40	56.37	2.80%
EDUCATION	3.10	54.40	12.40	11.70	24.13	1.20%
LANGUAGE	10.90	35.60	11.10	14.80	29.73	1.48%
GEOGRAPHY	6.60	3.70	6.50	8.20	7.10	0.35%
HEALTH EDUCATION	11.93	5.90	11.93	13.27	16.93	0.84%
HISTORY	44.60	4.73	60.60	56.90	69.87	3.47%
MUSIC	22.57	42.80	25.17	20.80	25.50	1.27%
PHILOSOPHY	20.00	21.63	22.30	19.60	23.13	1.15%
POLITICAL SCIENCE	2.90	21.60	8.40	5.00	7.03	0.35%
PSYCHOLOGY	33.60	6.60	25.80	28.30	33.07	1.64%
THEATRE ARTS	9.97	3.70	13.63	12.07	39.20	1.95%
SPECIAL TOPICS	9.47	11.83	1.57	27.10		0.00%
VISION CARE	20.37	11.37	6.27	6.27	8.50	0.42%
CRIMINAL JUSTICE					5.70	0.28%
FINE ARTS					3.67	0.18%
HEALTH SCI/HUMAN/SOC SCI/PE	561.13	570.90	597.23	629.17	753.20	37.38%

APPENDIX F: CHART 11
HOWARD COMMUNITY COLLEGE
HIGH ENROLLMENT PROJECTIONS BY DISCIPLINE FOR FISCAL YEAR 1990

DISCIPLINE (BY DIVISION)	ACTUAL FTE FY85	FY86	FY87	FY88	FY90	FY90 % /TOT
ACCOUNTING	125.20	112.90	113.60	116.70	129.07	6.41%
BUS. ADMIN.	97.03	94.53	96.93	105.23	107.17	5.32%
COMPUTER AIDED DESIGN					14.70	0.73%
CONSTRUCTION TECH.	12.00	2.80	7.57	8.93	10.73	0.53%
DATA PROCESSING	129.63	120.20	127.27	122.07		0.00%
ECONOMICS	42.40	44.60	45.70	55.40	58.13	2.89%
MATHEMATICS	295.43	272.53	280.00	283.43	300.17	14.90%
SECRETARIAL SCI.	49.40	38.23	43.70	47.10	52.60	2.61%
BIOMED INSTRUMENTATION	4.83	3.80	2.33	0.67		0.00%
BIOLOGICAL SCIENCES	35.70	36.97	37.67	43.67	50.00	2.48%
CHEMISTRY	36.80	39.47	36.80	39.20	41.53	2.06%
ELECTRONICS	34.17	28.27	31.33	26.80	25.03	1.24%
ENGINEERING	8.33	11.90	10.77	10.07	12.67	0.63%
FINANCIAL PLANNING			5.80	9.70	9.60	0.48%
MANAGEMENT	36.30	35.70	34.60	35.10	40.73	2.02%
PHYSICS	13.63	16.00	15.17	13.07	14.83	0.74%
PLANT SCIENCE	9.63	9.93	7.03	8.47	8.47	0.42%
SCIENCE	69.23	60.33	53.73	51.60	66.57	3.30%
BIOMED TECHNOLOGY	2.60		1.10	0.90	3.17	0.16%
SPECIAL TOPICS	11.50		3.87	6.47		0.00%
COMPUTER SYSTEMS				12.67	143.13	7.10%
RETAILING				0.80	1.50	0.07%
TECHNOLOGY					1.10	0.05%
MATH/SCI/BUSINESS	1013.83	928.17	954.97	998.03	1090.90	54.15%
HUMAN DEVELOPMENT **	30.50	33.30	30.10	38.50	37.93	1.88%
LRC/TELECOURSES	33.80	33.67	55.13	67.13	54.07	2.68%
CO-OP ED	17.50	10.37	13.77	12.30	15.47	0.77%
CONTINUING ED CREDIT	51.01	72.27	47.54	48.43	63.2	3.14%
TOTALS	1707.78	1648.67	1698.74	1793.57	2014.77	

* High discipline projections are from Division projections.

** Human Development has previously been included in the Health Sci/Human/SocSci/PE Division.

Note: FTE on this chart includes out-of-state students and employees. Total FTE includes Division Credit and Continuing Education Credit.

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APPENDIX G

CONTINUING EDUCATION AND DIVISION CREDIT FTE PROJECTIONS
MODERATE PROJECTIONS - BASED ON CHARTS 1-A AND 1-B

NOTE: THIS CHART INCLUDES ONLY FTE ENROLLMENT APPROVED FOR STATE AID; IT DOES NOT INCLUDE EMPLOYEES OR OUT-OF-STATE STUDENTS. FROM FISCAL YEA

FISCAL YEAR	CONT ED* CREDIT	CONT ED % OF TOT	CONT ED* CREDIT FREE	DIVISION CREDIT	TOTAL CREDIT FTE	TOTAL FTE	% CHANGE
FY 76			235	985	985	1,219	
FY 77			303	1,106	1,106	1,408	15.5%
FY 78			332	1,121	1,121	1,452	3.1%
FY 79			363	1,139	1,139	1,502	3.4%
FY 80			411	1,269	1,269	1,680	11.9%
FY 81			398	1,487	1,487	1,885	12.2%
FY 82	14	0.67%	404	1,625	1,639	2,043	8.4%
FY 83	14	0.60%	471	1,847	1,861	2,332	14.1%
FY 84	21	0.88%	611	1,736	1,756	2,368	1.5%
FY 85	51	2.18%	647	1,642	1,694	2,340	-1.2%
FY 86	72	3.08%	709	1,568	1,640	2,349	0.4%
FY 87	48	1.95%	750	1,638	1,685	2,435	3.7%
FY 88	48	1.85%	838	1,734	1,782	2,621	7.6%
FY 89 TO DATE	21						
AVERAGE PERCENT OF TOTAL:		1.60%	PROJECTION FACTOR:	1.60%			
PROJECTIONS							
FY 89	45		891	1,862	1,907	2,798	6.8%
FY 90	46		943	1,905	1,951	2,894	3.4%
FY 91	48		998	1,950	1,998	2,996	3.5%
FY 92	49		1,056	1,946	1,995	3,051	1.8%
FY 93	50		1,117	1,942	1,992	3,109	1.9%
FY 94	51		1,182	1,938	1,989	3,171	2.0%

*Continuing Education

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APPENDIX H

OUT-OF-COUNTY FTE

	FY87	OUT-OF-COUNTY % OF TOTAL ELIGIBLE	FY88	OUT-OF-COUNTY % OF TOTAL ELIGIBLE	PROJECTED FY89 *	PROJECTED FY90 *
OUT-OF-COUNTY FTE (FROM STATE HOURS REPORTS)	112.03	4.60%	125.70	4.80%	131.44	135.93
TOTAL ELIGIBLE FTE (FROM SBCC TRANSMITTAL REPORTS)	2,436		2,621		2,798	2,894

* USING AVERAGE % OF OUT-OF-COUNTY TO TOTAL ELIBIBLE ON TOTAL ELIGIBLE PROJECTIONS.

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APPENDIX I

FTE ENROLLMENT FOR OUT-OF-STATE AND EMPLOYEES

				PROJECTED	
	FY87 FTE	FY88 FTE	% CHANGE	FY89 FTE	FY90 FTE
EMPLOYEES	11.63	5.67			
OUT OF STATE	4.63	5.50	18.8%	6.53	7.76

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HOWARD COMMUNITY COLLEGE
List of Most Recent Research Publications

Livieratos, Barbara B. REPORT ON THE RESULTS OF THE 1988 SURVEY OF TELECOURSE STUDENTS. Report No. 54. Howard Community College, August 1988.

Livieratos, Barbara B. THE SURVEY OF EMPLOYERS OF 1986 HOWARD COMMUNITY COLLEGE GRADUATES: A REPORT OF THE FINDINGS. Report No. 53. Howard Community College, July 1988.

Novak, Virginia E. FOLLOW-UP OF 1986 GRADUATES. Report No. 52. Howard Community College, May 1988.

Monroe, Charlotte A., Novak, Virginia E., and Radcliffe, Susan K. HOWARD COMMUNITY COLLEGE 1988-1989 INSTITUTIONAL INDICATORS FOR PROPOSED OPERATING BUDGET. Report Number 51. Howard Community College, April 1988. ERIC Publication Number ED 292 525.*

Livieratos, Barbara B. HIGHLIGHTS OF THE SURVEY OF EMPLOYERS OF 1985 HOWARD COMMUNITY COLLEGE GRADUATES. Report Number 50. Howard Community College, February 1988. ERIC Publication Number ED 292 488.*

Livieratos, Barbara B. FINDINGS FROM THE SURVEY OF EMPLOYERS OF 1984 HCC GRADUATES. Report No. 49. Howard Community College, December 1987.

Novak, Virginia E. and Radcliffe, Susan K. ENROLLMENT PROJECTIONS REPORT. Report No. 48. Howard Community College, December 1987.

Novak, Virginia E. and Radcliffe, Susan K. FOLLOW-UP OF 1985 GRADUATES. Report No. 47. Howard Community College, August 1987. ERIC Publication Number ED 285 611.*

Office of Research and Personnel, FTE ENROLLMENT TRENDS FY84 - FY87. Flash Facts Vol. III, Number 1. Howard Community College, August 1987.

Office of Research and Personnel, HCC STUDENT POPULATION OF HOWARD COUNTY RESIDENTS FOR 1986-87 BY COUNCIL DISTRICT. Flash Facts Vol. II, Number 3. Howard Community College, June 1987.

Monroe, Charlotte A., Novak, Virginia E., and Radcliffe, Susan K. HOWARD COMMUNITY COLLEGE 1987-1988 INSTITUTIONAL INDICATORS FOR PROPOSED OPERATING BUDGET. Report No. 46. Howard Community College, April 1987.

*An ERIC Publication Number indicates that the report was published by Educational Resources Information Center (ERIC), and that it is listed in the resources in education index.

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